Understanding the seating patterns in a university residence dining hall: A longitudinal study of intergroup contact and friendship

by

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Declaration

This work has not been previously submitted in whole, or I part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

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Contents

Abstract

Research on intergroup contact and friendship have long existed as popular complementary areas of research in social psychology. Not only does contact underlie friendship, but friendship also offers the opportunity for voluntary, frequent, intimate contact. Thus, friendship may not only offer the most optimal intergroup contact setting, but it may also present the ideal outcome most social psychologists desire for intergroup contact. The present study investigates the extent to which a relationship exists between intergroup contact and friendship among students in a residence dining hall. A measure of intergroup contact was obtained through naturalistic observations of students' seating patterns. The investigation of students' friendships was undertaken by means of a 3-part questionnaire. Each questionnaire contained both closed- and open-ended questions. These questionnaires also served to provide additional information about students' seating patterns. Both means of data collection were longitudinal.

Generally, an aim of the study was to establish the level of segregation among the students in the dining hall and to attempt to understand the motivations that establish and maintain such patterns. Students' level of intergroup contact and interracial attitudes were among the factors investigated for such motivations. With this, a further aim of the study was to establish whether the patterns observed were also patterns of friendship. If this were so, then a further aim of the study was to investigate the determinants of friendship for these students, generally, in order to ascertain the level of importance of race among such determinants. The analysis was focused around 10 specific objectives. Students' seating patterns were analyzed using 2 indices of spatial variation. These included D and xPy*. For the most part, the rest of the data was analyzed descriptively. However, simple qualitative coding of some open-ended responses was also undertaken. The descriptive results were at times supplemented by correlations, t-tests and multiple regression analyses. Results reflect a distinct pattern of informal segregation among the students in the dining hall. Generally, results show that these patterns are indeed, for the most part, patterns of friendship. Further investigations into students' friendships also reflect a tendency for a predominance of same-race friendships. Such a preference for same-race individuals was found to be consistent with certain emotive factors and to a lesser extent, with intergroup attitudes. In addition a significant finding was the correlation between this same-race preference in students' seating patterns and how comfortable they were with other-race students.

Introduction

Intergroup relations have long been an important social concern in multiethnic societies. Particularly, such relations have been problematic in countries where there has been an organisation of racial groups according to differential status, legislatively. South Africa has been one such country. Prior to 1994, the country was governed by a system of apartheid i.e. "…the legalized segregation of people on the basis of their race or ethnicity" (Christopher, 1990, p. 421). This system of government set up discriminatory intergroup relations, classifying racial groups disparately and segregating them. This segregation focused predominantly on the division of whites and blacks, both in the personal and social contact spheres (Foster & Finchilescu, 1986). Keystone among the laws that upheld segregation was the Group Areas Act (see Christopher, 1990; Williamson, 1955). "The act was to effect sufficient commercial and residential insulation so that practically all physical and social *contacts*[1] between Europeans and natives would be terminated" (Williamson, 1955, p. 167). Thus, the emphasis in this act was on separatist principles, through the cessation of contact.

In 1994, now 10 years ago, the country undertook to improve such relations by the introduction of a democratic legislation. Such legislation endorsed that all race groups would be considered equal. With this, one would expect that the desirable outcome, most likely for social psychologists, would be that changing the status of the country, by allowing the integration of racial groups, would automatically initiate contact between groups. Consequently, this would then reduce discrimination and prejudice between the groups. However, such expectations might not be as simple.

Firstly, it is not realistic to expect racial groups that have long been separated, to begin integrating, merely upon being allowed to mix. Secondly, racial groups were segregated for a long time and thus improving intergroup relations through desegregation is also expected to take time. This is particularly evident by the fact that high levels of segregation can still be observed in society today. Duckitt and Mphuthing (1998), reporting on results from surveys collected before and after the transition, found that "In sharp contrast to the highly significant changes that occurred in socioeconomic

[1] Emphasis added

perceptions and relative deprivation, however, there was essentially no change in interethnic attitudes from before to after the elections" (p. 828). Similarly, in 2001, Christopher reported that the intercession by government was necessary to aid in improving the high levels of segregation that was still observable in the country.

Thus, although it is no longer legislatively enforced, segregation still seems to be occurring. Dixon & Durrheim (2003) distinguish between the type of segregation observed today, which they refer to as 'informal segregation', and "state orchestrated and enforced divisions of the past" (p. 672). They label this 'informal' type of segregation a component of "the new segregation in South Africa". In essence 'informal segregation' is similar to the effect of 'resegregation', which researchers have identified as an impediment to contact (Schofield, 1995). Both are forms of segregation, in the absence of mandatory institution thereof. This type of segregation is particularly visible in settings that one would consider sufficiently diverse and optimal for promoting integration, for example schools and university campuses (see Buttny, 1999; Schofield & Sagar, 1977). Efforts to explain such resegregation, despite current efforts at desegregation, present an exigent topic for researchers, particularly in the field of social psychology.

Theoretical framework: *Contact*

There exists a vast literature in Social Psychology on intergroup relations of which the primary concern is improving such relations. Well renown in such literature is what is known as the Contact Hypothesis. Fundamentally, the idea underlying the hypothesis is that favourable attitudes between different racial groups will result, the more the groups interact or come into contact (Allport, 1954). This argument would make sense, as the Contact Hypothesis seems to argue for the antithesis of that which previously upheld apartheid, namely, segregation. In fact the argument put forward in the "grand apartheid hypothesis" was that "the reduction of contact leads to improvement in race relations" (Foster & Finchilescu, 1986, p. 125).

Furthermore, if segregation, and subsequent estrangement, resulted in a lack of knowledge of out-groups, which in turn resulted stereotypical ideas of the outgroups, then intergroup contact would result in the reverse effect, with its provision of knowledge of the outgroup (W. G. Stephan & C. W. Stephan, 2000, as cited in Paolini, Hewstone, Voci, Harwood, & Cairns, in press). Thus the underlying argument in all contact movements was that the interaction would allow groups to dispel any stereotypes each group had of the other, leading to improved cognitions of each other and subsequent interaction. This hypothesis and the modifications it has undergone since its earliest form has served to establish one of the most researched areas in social psychology, i.e. contact theory.

Dating back to its formative years, contact theory now spans over fifty years of research (Watson, 1947; Williams, 1947). One of the earliest and most recognized additions to the hypothesis was the contribution made by Allport (1954), in his classic text, *The Nature of Prejudice*. According to Allport, expecting different racial groups to integrate upon mere interaction was too simple an expectation, taking into account that the nature of contact might be different between different groups (Allport, 1954). Depending on the situation and characteristics of the groups involved, the contact could either increase or decrease prejudice between the groups depending on the dynamics involved between the two groups. Allport (1954) labeled such train of thought, that simply placing groups together would lead to better relations between them, naïve, as it fails to take into account the history of relations between members of the groups. This belief of

integration, upon mere desegregation, has been referred to as the 'natural progression assumption' (Shaw, 1973). Hallinan (1986) explains:

> "When the massive effort to desegregate the public schools began in the 1960's, many educators and parents believed that merely placing black and white students together in the same school would initiate a process of interracial contact that would lessen hostility, alter negative stereotypes and lead to interracial friendships. This belief, referred to as the natural progression assumption, is contradicted by a number of empirical studies" (Hallinan, 1986, p. 168) (e.g. Shaw, 1973).

Thus, Allport (1954) extended the hypothesis to include that certain optimal conditions were necessary in the contact situation. He included that the groups should have equality in status. In addition, the groups should have a common goal and that they work cooperatively, rather than competitively, in achieving it. Finally, the contact between the groups should be either legislatively or institutionally sanctioned (Allport, 1954). Pettigrew (1967, as cited in Schofield & Sagar, 1977, p. 130), using Allport's version of the contact hypothesis, distinguishes between the two concepts of desegregation and integration. He labels "the mere mixing of students "desegregation"" and contact, as advocated by Allport, as 'integration' (Pettigrew, 1967, as cited in Schofield & Sagar, 1977, p. 130).

Allport's (1954) theory on the optimal contact conditions has become intimately linked to most research on the contact hypothesis. His conjecture became the basis for ubiquitous research and theorizing on the topic of contact. Amongst other things, it became the vehicle for a number of policy-orientated efforts in America, such as the integrated housing projects (Deutsch & Collins, 1951; Jahoda & West, 1951; Wilner, Walkley, & Cook, 1952), and in instituting desegregation in schools (Schofield, 1986). With regards to the latter, for example, it was this idea of 'contact' that formed the underlying principle in the controversial 'Brown vs. Board of Education' case in America in 1954. The case was against the doctrine of "separate but equal" education for blacks and whites in American schools. The argument was against the inequality that such a doctrine imposed especially for black students and thus argued for desegregation (intergroup contact) in American schools (see Schofield, 1986; Stephan, 1978).

It is neither the purpose of, nor within the scope of this paper, to review the literature on the contact hypothesis or contact theory in general. However, it is hoped to at least provide an overview of major works done in this area, the main ideas put forward over the years, as well as the limitations faced by this hypothesis. Major reviews have been done periodically (see Amir, 1969, 1976; Cook, 1962; Hewstone & Brown, 1986; Pettigrew, 1998; Pettigrew & Tropp, 2000, for a meta-analysis, & Dovidio, Gaertner & Kawakami, 2003, for a review of the historical development). These theorists work have acted as major directives for research on contact.

In comparison to the voluminous research on contact conducted in America, South African research on contact is relatively scant. This is surprising, bearing in mind the controversial history of race relations in the country. However, despite the scarcity of research in this area, Mynhardt and Du toit (1991), some years ago, managed to compile a comprehensive overview of contact research in South Africa. The studies reported on, exhibited a range of research findings and contact effects. A summary of their review follows.

Among the studies reported on, some did report positive contact findings (Luiz & Krige, 1981; Russell, 1961; Spangenberg & Nel, 1983, as cited in Mynhardt & Du Toit, 1991). Luiz and Krige (1981, as cited in Mynhardt & Du Toit, 1991) found mutual positive contact effects for the two groups involved in the study, which had enduring effect for one of the groups (Luiz & Krige, 1985, as cited in Mynhardt & Du Toit, 1991). Russell (1961, as cited in Mynhardt & Du Toit, 1991) found a link between contact and proximity to the extent that it produced amicable relations between the groups. In addition, Spangenberg and Nel (1983, as cited in Mynhardt & Du Toit, 1991) found positive contact findings between Afrikaans lecturers and students at a black university. Their study was however criticized by Foster and Finchilescu (1986), since the comparative groups (contact and non-contact groups) only differed on one out of seven aspects. Finally, Finchilescu (1986) investigated the effect of integrated (contact) versus non-integrated (non-contact) training programs for nurses. Results showed positive support for the integrated training, more strongly for white nurses.
Other studies have reported less convincing or weaker contact effects; for the most part involving either one-sided or unreciprocated contact effects (Bornman, 1988; Bornman & Mynhardt, 1990; Niewoudt, 1973, 1976, as cited in Mynhardt & Du Toit, 1991). For

example, in the studies by Niewoudt (1973, 1976, as cited in Mynhardt & Du Toit, 1991), results reflected a stronger contact effect for Afrikaans-speaking servicemen, as they exhibited greater attitude change towards English-speaking servicemen than the reverse sequence.

Still, other studies have reflected negligible, or even deleterious effects of contact (Lever, 1968; Mynhardt, 1982; Niewoudt, Plug, & Mynhardt, 1977, as cited in Mynhardt & Du Toit, 1991). For example, Mynhardt (1982, as cited in Mynhardt & Du Toit, 1991) found that even in the face of an "ideal" contact setting, favourable contact effects were not found. In fact the results showed negative contact effects for those who had engaged in contact.

As previously mentioned, and in addition to those studies reviewed by Mynhardt and Du Toit (1991), there has not been a great many studies conducted in the field of contact in South Africa. In light of those that have been conducted in South Africa, these have focused, for the most part, on the general effects of contact, compared to American contact research, of which a chief focus has been investigating optimal contact conditions. These have included the conditions suggested by Allport (1954), as well as an extensive list of other conditions put forward by various contact researchers, for which the scope of this paper does not allow discussion. With this, what follows is only a brief discussion of the optimal set, as well as some of the other conditions, which have received noteworthy recognition in contact research.

Equal status

Allport's advocacy of equal status in the contact situation has been investigated by a number of researchers and found to be essential to the contact situation (Patchen, 1982; Riordan, 1978). Patchen (1982) found that "…the types of circumstances in which blacks expressed the most positive attitudes toward white schoolmates, and were most willing to associate with them, appeared to be those in which blacks were most likely to feel accepted and treated on an equal basis by both white students and the school staff" (Patchen, 1982, p. 331).

The effect of equal status contact has been investigated in a variety of contexts ranging from the merchant marines (Brophy, 1945) to integrated housing projects (Deutsch &

Collins, 1951; Wilner, Walkley, & Cook, 1952). Although the latter of these studies might not directly be interpreted as focusing on equal status, Amir (1976) points out that the assumption of equal status contact may be made in the housing project studies, as all individuals entering the projects were of the same standing socio-economically. The argument of equal status contact is simple: it does not position either of the groups in contact in either a superior or inferior framework, thereby eliminating the conflicting dynamics that may often define the contact between groups of different status. It is likely to assume that some issues of dominance or subordination, or hostility and threat that exist naturally between groups ordered on a status hierarchy, differentially, will be conveyed to the contact situation if equal status contact is not conferred on the groups in some way in the contact situation.

According to Cohen (1972), theories "suggest that the relations between the races will be biased in the same direction as in the outer society" (p. 9); in other words, the nature of intergroup race relations in interpersonal settings may mirror such relations in society at large. Thus, if such relations are problematic in society, this may interfere in the interaction between members of different race groups on an interpersonal level. She labels this predisposition 'Interracial Interaction Disability', which refers to the saliency of race in the contact situation to the extent that it influences the dynamics of the interaction. She further explains that

> Theoretically, interracial interaction disability occurs when whites and blacks work together on a cognitive task which is new to the participants, but is regarded as important. Under these conditions both races are likely to be handicapped by built-in expectations for superior performance and greater participation on the part of the whites as compared to the blacks. Even with no prior knowledge of the capabilities of the individuals involved, there is a diffusion from the more general societal principle of superior-inferior relationships of blacks and whites. (Cohen, 1972, p. 10)

Cohen (1972) also argues that what exacerbates the problem is that the 'Interracial Interaction Disability' may be self-fulfilling, to the effect that blacks and whites expect superior and inferior performances of each other, respectively. With this, blacks, for example, will act in the expected manner, that confirms whites' view of them as unequal in status or inferior. Thus, Cohen (1972) advocates that the conferment of equal status

on the groups in contact is not sufficient for favourable contact, because race membership already creates an expectation of the outcome of the interaction. She labels race a status variable, as it positions groups in interactions based on their race membership. Cohen (1972) suggests that rather than attempting to create equal status, a reversal of the roles of blacks and whites with regards to status, is what is necessary to achieve a more favourable outcome. For example, if whites view blacks inferiorly, having blacks present themselves contradictorily, in a superior way, may dispel such stereotypes in whites. Conversely, if blacks' view of whites is that they are superior, reversing these status roles may give blacks more confidence in their interactions with whites.

A study by Shaw (1973), aimed at examining the proposition of equal status contact (Allport, 1954), also did not find strong evidence in support of it. Riordan and Ruggiero (1980), in their replication of the Cohen and Roper (1972) study, also found that the presumption of equal status should not be automatic, even when the groups in contact share similar features of age, sex, and socioeconomic status. These researchers recommend that some form of intervention that aims to deal with or "treat" group expectations of each other, should precede the interaction (p. 131).

The issue of equal status in intergroup contact is not clear-cut, nor is it a condition that is easy to achieve, even experimentally, when a range of conditions can be controlled (Riordan & Ruggiero, 1980). It is largely influenced by the different group members' expectations of each other (Robinson & Preston, 1976). These authors have also found that whites, who are often the most dominant group in interactions among races (Cohen, 1972), may often perceive the interaction as being on an equal status basis in contrast to blacks who may not (Robinson & Preston, 1976). Thus, the issue of equal status is truly problematic, in terms of its effects, or even merely in achieving it in the first place. Amir (1976) points out though, that even if groups are able to interact on an equal status basis, that "…equality of group status may in some cases produce frustration and conflict if one group feels threatened by it" (p. 272). Thus, it seems that the mere proposition of equal status as one of the contact conditions that will result in favourable contact, is truly an understatement of actually achieving it and managing it effects.

Cooperation towards common goals

Allport (1954) also put forward the importance of cooperation towards common goals within the contact situation. The idea behind this condition was that if groups were able to work together in pursuit of a common goal, this would encourage more favourable interaction between them or draw the groups closer. Sherif (1966 as cited in Amir, 1969, p.328), however, further refined this condition to what he referred to as a 'superordinate' goal rather than merely a common goal. He stated that it was necessary that the goals be highly attractive to both groups in order to entice two hostile groups to participate cooperatively in an activity. Amir (1969) explains:

> Common and superordinate goals are generally absent where the contact situation itself is in contradiction to the objectives and the immediate needs of one or more of the interacting groups. When the contact between the groups is to the disadvantage of one of them (i.e., economic disadvantage, lowered prestige or status level, etc.), not only does the contact not reduce prejudice, but may even intensify intergroup hatred and violence (Amir, 1969, p. 329).

Generally, however, the existence of a common goal has shown to improve contact between blacks and whites to the extent of friendly relations (Patchen, 1982). Conversely, competition between groups may lead to unfavourable intergroup relations or impede contact (Amir, 1969). According to Lawrence (1968, p. 103, as cited in Amir, 1976), "It is a sociological truism that inter-minority tensions are likely to be highest between those groups who are in closest competition with one another" (p. 269). When groups are in competition, it is most likely that the existence of competition between groups may lead to an establishment of a status hierarchy in the groups, for example, if it results in one group being in a dominant position. Consequently, the subordinate groups may experience a threat to their status (Amir, 1969). Competition may also serve to create or enhance stereotypes, depending on the competitive task. Thus, "when goals are competitive and can be achieved only by undermining the other group, hostility and intergroup hatred ensues" (Amir, 1976, p. 269). With this, the main principle underlying this condition is the '*realization*' of the groups' reliance on each other and thus the need to work harmoniously in order to achieve or attain an outcome desired by both groups (Amir, 1969, p.328).

Institutional support – the perception of norms of socially acceptable behaviour

In addition to the groups having equal status and working cooperatively in order to achieve common goals, Allport (1954) also suggested, as a final condition, that the contact between groups should be socially sanctioned. In other words, there should be a supportive "social climate" (Cook, 1964, p. 5) for the contact. Basically, depending on whether it endorses the contact or not, the social climate may firstly determine whether the contact between groups occurs at all. If the social environment is non-supportive, people will most often not readily challenge it (Deutsch & Collins, 1961). In a non-supportive social climate with regards to intergroup mixing, people may often avoid contact out of fear of ostracism (Deutsch & Collins, 1961).

Secondly, the social climate may determine what the outcome of the contact with regards to future relations between members will be. The social climate influences whether positive contact between members of the two groups will affect future relations positively, because it affects the reception of such contact by peers, socially. Depending on whether the social climate is supportive or not, this will either encourage or inhibit intergroup contact, respectively. This range of effects is demonstrated in the following extracts from residents in one of the integrated housing project studies:

> …one woman in a segregated project said: "They'd think you're crazy if you had a coloured woman visit you in your home. They'd stare at you and there'd be a lot of talk". Another said, "I used to be good friends with a colored woman who worked with me at the factory before I moved here. She lives in the other side of the project but I never have her over to my side of the project – it just isn't done. Occasionally, I go over and visit her" (Deutsch & Collins, 1961, p. 619)

The importance of a supportive social climate was also found in another study involving the housing projects (Wilner, Walkley, & Cook, 1952). In this study, the degree of positive regard for black residents depended on white residents' perception of approval from their peers. The white residents who perceived peer approval amongst the other white residents for their interracial contact with black residents, showed greater positive regard for blacks than did those who perceived an unsupportive social climate (Wilner, Walkley, & Cook, 1952).

Finally, Minard (1952) showed how an unfavourable social climate might restrict the extent of favourable interracial relationships. In his study of black and white mine workers, results showed that although the black and white mine workers seem to show friendly relations while working together in the mines, i.e. out of the public eye, out of this context and in public, such friendly relations between them seemed to dissipate to the extent of sitting in demarcated black and white areas in the busses they took home (Minard, 1952).

Cook (1964), commenting on the general point to be made by studies on social climate, says the following:

> "What [these studies] tell us is that interracial contacts take place in a social context in which the individual is responding not only to persons from another ethnic group but also to what he believes would be judged proper in such relationships by those whose social approval he needs and seeks" (p. 5).

Thus, what these studies convey is that it does not matter whether the contact situation offers an opportunity for favourable interaction, when the social atmosphere does not support it. Once those in contact leave the contact situation, the effect will merely dissipate into the social climate (Minard, 1952). Depending on the nature of the social climate, it will either support or destroy the relationships created. Bearing in mind the history of intergroup relations in most multi-ethnic societies, non-mixing is most often what different groups regard as normal. Although it is no longer enforced, it seems as though people still tend to live by former roles (Christopher, 2001). It is therefore important to create the atmosphere that intergroup contact is normal. This is, however, a lengthy process, as shown by some researchers in South Africa (Christopher, 2001; Duckitt and Mphuthing, 1998). Therefore, it is important to move away from the idea of intergroup mixing as 'abnormal' and rather promote it as commonplace.

Intimacy

In addition to the optimal set of conditions suggested by Allport (1954), a condition conjectured to have considerable effect on the outcome of contact is the level of intimacy of the contact (Amir, 1969; Pettigrew, 1998). According to research in this

area, a strong argument exists that more intimate contact will more readily result in a change of attitudes towards the positive than mere casual contact (Amir, 1969, p. 330).

However, Jackman and Crane (1986) have put forward an alternative argument that an array of interracial contact experiences with a number of out-group members, regardless of the level of intimacy (be they friends or acquaintances, or both), results in greater effect than a close, intimate relationship with one out-group member. Jackman and Crane (1986) found that there were few differences in the effect of whites who had either a black friend or black acquaintance. By implication, these authors suggest that it is first and foremost the contact that matters and that regardless of whether it is of a superficial or a close and personal nature, that both will at least have some effect. They note: "…we know that many whites would prefer to avoid or minimize their contact with blacks' (Jackman & Crane, 1986, p. 466). Thus, bearing in mind the difficulty of already getting people to make contact, they argue that at least achieving casual contact, albeit superficial, should be a satisfactory result. Furthermore, in striving for intimate contact, this will most likely only result in few such associations, in comparison to casual contacts, which are frequently, multiple. Most often, our acquaintances are countless, but our closest friends are few. Thus, a further argument in support of casual contacts may be that a few close friendships may dissipate, dissolving contact too. On the other hand, a few less acquaintances, from a pool of casual friends, might not even lessen the effect of the remaining others and with this, contact may continue to effect attitude change through the strength of the remaining acquaintance base. In addition, in having only one or few cross-group friends, these friends may be seen as atypical members of their respective groups, impeding generalization of the contact effect. Thus, the preference for numerous contacts, irrespective of the level of intimacy suggested by Jackman and Crane (1986), argues for the most part for the greater span of contact it offers and its endurance for a continual contact effect. A similar argument has been put forward by Cohen (1975) that the attention of policy makers should be drawn towards achieving a greater span of casual associations than attempting to establish intimate relationships in desegregated schools (as cited in Schofield & Francis, 1982, p. 723).

However, what these authors (Jackman and Crane, 1986) suggest is largely contradictory to significant contributions from noteworthy authors in contact literature (Amir, 1969, 1976; Pettigrew, 1997), that is, that intimacy is a major factor with regard

to the kind and quality of contact aimed at in social relations. Even though Jackman and Crane (1986) argue that an array of contact experiences, regardless of intimacy, may be more advantageous than intimate contact in some ways, in intimate contact relations, research has reflected otherwise. One obvious difference, for example, is that in comparison to intimate relationships, casual relationships will not allow group members to truly get to know one another and the level of actual interaction will most likely be minimal. Because of the superficial nature of casual associations, it is questionable how positive contact outcomes are achieved in the absence of knowledge that serves to dispel erroneous ideas or stereotypes of the outgroup. With this, research by Bloom (1971 as cited in Amir, 1976) has shown that casual contact may not be sufficient to effect positive outcomes between various racial groups. "Bloom (1971) states that "there is probably more casual interracial contact in South Africa than in most multiracial states, yet, it would be a feat of irresponsibility to argue that race attitudes and behaviours in SA are benign" (p. 163) (as cited in Amir, 1976, p. 246). Furthermore, Wilner, et al., (1952) found that "the persons most likely of all to hold Negroes in low esteem…were those who had no contacts with them or, at most, exchanged casual greetings" (p. 69).

The argument for close, affective-type contact has thus become a strong standpoint in contact literature, and has not only received theoretical, but empirical support. In fact, the most noteworthy of contact relationships demonstrative of intimacy, is friendship. The topic of friendship will be discussed later. However, what it will show is that the intimate contact relations that friendship offers is what is strived for as the ultimate contact situation for effecting favourable intergroup relations. In fact, research has shown that friendship may even yield stronger contact effects than ordinary contact (Hewstone, et al., in press).

Opportunities for contact

Although it is not mentioned in the set of conditions that describe the optimal contact setting, Amir (1976) describes the opportunities that exist for contact, as one of the most important contact factors. He explains that the opportunity provided for contact is a "prerequisite for contact" (p. 322). In other words, in all studies, the opportunity for contact has to exist for contact to occur. Thus, the opportunity for contact may be seen as the necessary initiative for interaction for effecting positive change in many contact

studies. As Amir (1969) points out: the housing studies serve as a good example of the effects of opportunity for contact. By placing residents in living quarters which are mixed and in which they live in close proximity to other-race residents, this already sets up a chance for intergroup contact to occur. It enables the possibility for contact by providing a structured contextual setup in which contact is likely to occur.

Cook (1964) also states that the opportunity for contact or interaction provided *within* the contact situation itself is also a relevant contact factor. He labels this the contact situation's "acquaintance potential" (p. 4). In short, 'acquaintance potential' refers to "the extent to which [the contact situation] offers the opportunity for the participants to get to know one another" (Cook, 1964, p. 4). People may come into contact without having the opportunity to actually engage with each other or interact. This will not effect positive outcomes, as it is necessary for members of different groups to get to know one another in order to reduce intergroup prejudice and bias.

In conclusion, of the factors discussed above, it is important to note that no factor in isolation is enough to produce favourable contact. It is the combination of these factors, proposed by various researchers that create the optimal contact situation. However, the aforementioned conditions are only a handful in comparison to the countless conditions that have been suggested by social scientists throughout the years spanning research on the contact hypothesis. This presents one of the difficulties that have been faced in contact research.

Despite the seemingly uncomplicated recipe for achieving favourable intergroup contact, the notable support of the contact hypothesis has been accompanied in recent years by serious criticism. The first of these is with regard to the unending list of contact conditions that researchers have put forward over the years.

Even though certain factors, as those discussed above, were found to be important, the list does not end there. The reason is that all researchers have wanted to contribute something. Wright, Aaron, McLaughlin-Volpe, Ropp (1997) explain that the more researchers found negative factors that could undermine contact and its outcome; these factors were simply added to the list describing conditions optimal for contact. The problem with the continual advancing of these conditions is that it produces an endless

list of conditions, Pettigrew (1998) has labeled as a 'laundry list' of conditions. An additional analogy is that of Stephan (1987) that describes the contact hypothesis as a "big lady who is so encumbered with excess baggage she can hardly move" (p. 17). The contact hypothesis has, as such, become weighed down by the endless conditions that researchers continue to burden it with. Pettigrew (1998) attributes this problem to the fact that researchers do not distinguish clearly between those factors that simply aid in bringing about contact ("facilitating" factors), and those that are absolutely necessary for favourable contact to be achieved ("essential conditions") (p. 70). He suggests that what researchers might regard as crucial for favourable contact, may only in fact be conditions that merely support the contact process.

Of greater criticism still, is that most conditions are derived from experimental contact research and the careful manipulation of contact conditions. Numerous researchers have criticized this method in conjunction with the contact hypothesis (Dixon & Durrheim, 2003; Stephan, 1987). The chief argument is that because contact research has, for the most part, focused on experimental settings, research on contact has neglected real-life, naturalistic contact settings (Dixon & Durrheim, 2003; Stephan, 1987). With this, the application of research findings on contact in real-life intergroup relations has become questionable (Ellison & Powers, 1994).

According to Stephan (1987), the reason for the marked interest in the experimentally based research is due to researcher's "problem-solving orientation" (p. 14). Subsequently, "this led them to be interested in variables that could be controlled. They were less concerned with societal and personal factors not subject to situational control" (p. 14), which might characterize naturalistic settings. In fact, researchers have suggested that the success in the results of contact study may even be ascribed to the researchers' choice of propitious contact situations (Amir, 1969, 1976). This could then partly explain why contact study in naturalistic settings has been neglected (Dixon & Durrheim, 2003, Stephan, 1987). Although some empirical work may have been carried out in naturalistic settings, for example, among the merchant marines (Brophy, 1946), the integrated housing project studies (Deutsch & Collins, 1951; Jahoda & West, 1951; Wilner, et al., 1952), or Dixon and Durrheim's (2003) study on a South African beach, the predominant method of most other contact research has been experimental.

However, within the dearth of naturalistic studies, some contact researchers have conducted field studies. A short review of some of these studies follows.

Campbell, Kruskal and Wallace (1966) reported on an observational study in which they investigated what they referred to as "aggregation". This refers to the tendency of same-race individuals to form factions. As noted by Underwood (2002), the index of "aggregation" may implicitly be indicative of interracial attitudes, as patterns of interracial interactions, including clustering effects, are driven, in part, by interracial attitudes. All three desegregated schools investigated, showed aggregation tendencies in seating patterns for both race and sex, with significant probabilities ($p<0.01$).

Davis, Seibert, and Breed (1966) conducted a study on the seating patterns of black and white [2] commuters on a New Orleans public transit. The study served to investigate the degree of integration that had occurred on the transit following the termination of legal segregation on it, 8 years before. Results however did not reflect marked changes in the patterns of seating, even in the absence of legally enforced segregation. In light of the rarity of research of this nature, i.e. on buses or transit, not much was known about the measures for this kind of seating. With this, the authors proposed four methods of measurement. However, these being new measures, these might have clouded results.

In the study by Schofield and Sagar (1977), seating patterns were observed in a school cafeteria for 7th and 8th grade students. Results showed that race was an important factor in determining students' seating patterns, but that 'aggregation' by sex was even more pronounced. Results, however, did reflect that when conditions were 'optimal', particularly when equal status contact was provided, that this did lead to favourable contact outcomes for example, in the 7th grade. This is in keeping with the schools efforts towards achieving an equal status climate for the students and staff. However, when this was not achieved, in other words, when students did not share equal status, this may have marred efforts aimed at improving intergroup relations of the school. This was found to be the case in the 8th grade, where, some students who were predominantly

[2] In this study, 'white' participants included all non-Negro passengers, as these were "overwhelmingly white" (Davis, Seibert, and Breed, 1966, p. 299).

white, belonged to accelerated academic tracks while others did not, thus creating unequal status among the students.

An observational study was also conducted by Schofield and Francis (1982) in four desegregated, eighth-grade classrooms. Students selected for the sample all belonged to an accelerated academic program and thus these students shared equal status in this regard. Although results also reflected a greater tendency towards same-race interactions, the level of cross-race interaction was more so than in most studies of the same nature. In fact, the degree of cross-race interaction constituted more than a quarter of the interactions. For the most part, results reflected that these cross-race interactions were largely carried out by boys. Still, however, gender aggregation was stronger than aggregation by race. These findings are analogous to the findings by Schofield and Sagar (1977) and Singleton and Asher (1977).

In Sagar, Schofield, & Snyder (1983), patterns of interactions between black and white students were observed in sixth grade classrooms of a desegregated school, over one school semester. An extensive, 3,028 interactions were recorded. Results reflected that sex was the chief aggregating factor, followed by race, which also had a marked effect, however, to a lesser extent than sex. According to the authors, the latter result could not be explained by existing friendships, as most students entered into classrooms with new cohorts of students. Alternatively, they suggested that a possible explanation for the result of racial clustering might have been a conglomerate effect of "stereotyping, societal norms and differences between black and white children in interaction style" (Sagar, Schofield, & Snyder, 1983, p. 1038).

Rogers, Hennigan, Bowman, and Miller (1984), in a pilot field study, found that girls showed greater ingroup bias than boys. Following this, these authors conducted an observational field study of girls in a playground, which incorporated an intervention task requiring cooperative, interracial teamwork. A comparison of pretest-posttest scores reflected little change in girls' ingroup preference.

Finally, in a study by Henderson-King (1994) the reaction of white participants to a black or white confederate, after observing either an argument or neutral behaviour exhibited by either a black or white couple, was observed. Results reflected that when

the participants (who were only white) encountered unpleasant behaviour by members of the outgroup (an argument), that future interactions with a member of that outgroup was marred by the previous encounter. Thus, in the study, after observing a black couple arguing, the white participants interacted for a shorter period of time with a black confederate than with a white confederate. With this, the study demonstrated how negative contact experiences with outgroup members, albeit merely through observation, can be generalized to future associations with other members belonging to the outgroup.

What this study also reflects, as Underwood (2002) also points out, is how easy it is to vitiate contact. This vulnerability of contact shown in natural contact settings is in direct contrast to the ideal contact that may be achieved experimentally. It seems that experimental contact research merely masks the difficulties that may often interfere in everyday intergroup contact. With this, the extensive focus on experimental settings and contact conditions in contact research, may draw attention from a number of issues that may hinder contact when it occurs naturally, and with this, may limit research, which may be beneficial to everyday intergroup relations.

Thus, the major problem with the experimentally based contact research is its generalisability to real-life contact situations (Ellison & Powers, 1994; Kandel, 1978; Stephan, 1987). The conditions defined experimentally are 'rare', especially in real-life intergroup encounters (Ellison & Powers, 1994; Stephan, 1987). Real-life contact encounters "tend to involve superficial contact and unequal statuses, do not involve cooperation, lack support by authority figures, and involve unequal representation of the groups" (Stephan, 1987, p. 32). Other researchers have also reported such surface contact, as well as infrequency of contact, in real-life contact (Schofield, 1986; Sigelman et al., 1996, as cited in Dixon & Durrheim, 2003, p. 361). According to researchers, the outcome of contact in real-life settings is often only acquaintance-type relationships rather than intimate ones (Dixon & Durrheim, 2003). Dixon and Durrheim describe the 'optimal' experimental contact as 'chimerical' (p. 361); that it is largely, unrealistic. Amir (1969) also reports that the existence of a contact situation satisfying the prescribed optimal setup is 'doubtful' (p. 338) and therefore, this poses the obvious question of "whether contact *per se* fosters positive racial attitudes *in general*" (Ellison & Powers, 1994, p. 386).

To emphasize the point again, the contact hypothesis does not deal with real-life segregation and therefore, it is hard to apply to everyday life. One would be hard-pressed to find, especially in a country like South Africa, intergroup settings that warrant such conditions as demanded by the hypothesis. The way in which contact is tested experimentally detaches it from its societal context (Dixon & Durrheim, 2003). Thus, the attention of researchers is directed towards an 'unrealistic' and 'idealistic' image of what contact is and how it can be improved. Theoretically, it may seem logical and easy, but in actuality it is not.

One often forgets that the optimal situations in which contact has been achieved are derived for the most part within experimental settings (experimental manipulation). One is not claiming the contact hypothesis to be illogical or inapplicable; it is not disputed that favourable contact may result from the combined existence of the optimal conditions. The argument is that the possibility of encountering such optimal situations is not likely (Dixon & Durrheim, 2003). Thus, the optimal contact situations' parity to real life may be questioned. Real life, naturally occurring contact is unfortunately non-optimal in the context of contact conditions. This is one of the major shortcomings of the contact hypothesis. For society to prosper from contact studies, real-life circumstance requires attention (Stephan, 1987) instead of optimal settings that may never materialize.

With this, many researchers have acknowledged the vital role of naturalistic contact research and recommended its institution in future contact research (Amir, 1969; Stephan, 1987). One of two types of naturalistic contact domains reported to require focus is friendship (Hallinan & Smith, 1985 as cited in Stephan, 1987). As previously mentioned, the topic of friendship will be discussed later.

In addition to the problem of a predominantly experimental approach, the hypothesis, and research thereon, faces a number of other criticisms. For one, contact research has been criticized for the predominant focus on only white Americans (see Emerson, Kimbro, Yancey, 2002, p. 746). With this, the attitudes of black Americans have been ignored (Ellison & Powers, 1994). Contact research has also been criticized for negligence with regards to the spatial component of contact. However, in addition to the problem of a predominantly experimental focus, the greatest criticism of contact

research has included three other chief complaints. These include: the "causal sequence" problem, the problem of generalization, and finally, its failure to actually explain the underlying processes it incorporates, that actually brings about improved intergroup relations (Pettigrew, 1998).

Neglect of spatial component

Dixon (2001) recently proposed a strong argument against the neglect of research on the contact hypothesis with regards to "its interconnectedness with the spatial organization of intergroup relations" (Dixon, 2001, p. 587). Dixon proposes that the contact hypothesis is implicitly "an argument about the spatial organization of groups" (p. 601). As the contact hypothesis was an advocacy against segregation practices, which separated groups spatially, the proposed argument of the contact hypothesis against segregation can also be interpreted as an argument for the reorganization of groups, spatially. The use of different spaces was required for the institution of segregation. Be it legislatively enforced, or informal segregation, both require the use of space for its preservation. Within these spaces, segregation requires 'boundaries', which confines people to their defined spaces. Dixon (2001) refers to Sibley's (1988, 1995, as cited in Dixon, 2001) work on 'strongly and weakly classified environments' (p. 595) with regards to boundaries. According to Sibley (1988, 1995, as cited in Dixon, 2001) those boundaries that can be classified as 'strong' are those in which intergroup mixing is truly taboo and scorned upon. Alternatively, the 'weakly classified environment' incorporates less stringency, where intergroup mixing is tolerated. Here boundaries are 'soft' and malleable (Sibley, 1988, 1995, as cited in Dixon, 2001). Dixon advocates greater acknowledgement of spatial structures and processes in intergroup relations. As described, the spatial features of the contact or non-contact environment may have an important influence on the effect contact has in intergroup relations. Dixon (2001) explains that space is often a mere contextual factor, which plays a quiescent role in contact situations. With this, it is often overlooked or discounted among the factors important for effecting favourable contact. However, based on the role of space in segregation practices, and considering the fact that contact research is common in areas of segregation (Dixon, 2001), there exists a greater relationship between the two that should be investigated and established.

Causal sequence problem

With regards to the causal sequence problem in contact, the question here is whether contact really results in lowered prejudice, or whether it is predominantly people with low prejudice that enter into intergroup contact (Pettigrew, 1998). It is well known in contact research that "prejudiced people may avoid contact with outgroups" (Pettigrew, 1998, p. 69; Pettigrew & Tropp, 2000, p. 99). Therefore, it might be that successful contact results are consequential of a selection bias towards less prejudiced people. However, in his exhaustive study, involving over 3,800 participants, spanning France, United Kingdom, the Netherlands, and West Germany, Pettigrew (1997) reported that the sequential route of contact leading to a reduction in prejudice is stronger than the converse. Researchers have also proposed various methods to overcome the problem. These have included the implementation of longitudinal designs (Pettigrew & Tropp, 2000), as well as using "statistical methods borrowed from econometrics [that allow the comparison of] reciprocal paths" (Pettigrew, 1998, p. 69), for example, Powers and Ellison (1995, p. 209) utilized 'endogenous switching regression models'. Finally, researchers (Pettigrew, 1998; Pettigrew and Tropp, 2000) propose that the contact situation should be structured in such a manner that it provides little choice with regards to interaction.

Generalization

The generalizability of the results of contact research to members of the outgroup not involved in the interaction, has faced considerable criticism (Pettigrew, 1998). Although a vast literature exists that supports the contentions of the contact hypothesis, how extensible these findings are across situations and to other outgroups is questionable. Cook (1963, as cited in Jackman & Crane, 1986, p. 41-42) has however suggested that the means of dealing with the problem of generalizability is through establishing 'intimate' relationships; that the favourable effects of contact would not be generalized unless the contact was of an intimate nature.

Process problem

A final criticism of research on the contact hypothesis is related to the problem of understanding the process whereby contact results in favourable outcomes. The question left unanswered by most contact researchers is how this happens (Pettigrew, 1998). Pettigrew (1998) suggests that researcher's focus needs to be drawn to the underlying

processes that bring about favourable contact instead of merely focusing on the conditions that facilitate it. The mere presence of mediating factors cannot explain contact; it is the mediating processes that bring about contact. Four such interrelated processes have been suggested: (1) Stereotypes may be disconfirmed through the knowledge gained about the outgroup. (2) A change in attitude may follow the behaviour change endeavored by the contact situation. (3) The reduction of anxiety achieved through regular interaction may effect more positive contact. (4) A revision of the ingroup appraisal may occur, that their way is not the only way (Pettigrew, 1998). Importantly, these mediating processes have been found to have greater association with long-term close relationships such as friendship (Pettigrew, 1998).

Friendship – direct and indirect

Concomitant to the ubiquity of contact research, is that of the extensive literature of intergroup friendship. Before entering into a discussion of the literature of friendship, an important controversy that exists in friendship research requires attention. This controversy exists because of the opposing arguments presented by what are known as the 'direct, and indirect cross-group friendship hypotheses' (Wright, et al., 1997). Whereas the direct cross-group friendship hypothesis merely represents Pettigrew's (1997) proposition that interpersonal cross-group friendships aid in improving intergroup contact relations, the indirect cross-group friendship hypothesis or the 'extended contact effect' proposes that one does not actually have to be physically involved in the friendship process. In other words, the extended contact hypothesis proposes that mere knowledge of an ingroup member having an outgroup friend will suffice in bringing about more favourable intergroup relations. This controversy (Paolini, Hewstone, Cairns, & Voci, 2004) has especially materialized within three theoretical frameworks (Wright et al., 1997), including the cross-race friendship literature, social identity theory (SIT) (Tajfel, 1978), and the intergroup anxiety literature (Stephan & Stephan, 1985) (Wright, et al., 1997). Each of these will be described in brief.

Cross-group friendships

For the most part, the importance of cross-group friendships has developed from the continual propositions of the importance of intimacy by contact researchers (Amir, 1969; Pettigrew, 1997). In addition, it has also developed from the advantages

friendship has been found to offer contextually, as a contact situation, for example, its inclusion of the relevant processes that bring about favourable contact (Pettigrew, 1998). However, since friendship is an *interpersonal* process, the question of how friendship will influence *intergroup* relations has been the concern. (The topic of cross-group friendship will again be visited in the review of the friendship literature later on).

Social identity theory (SIT)

With this, an alternative model of contact within the framework of SIT gains its relevance to friendship research, as the interpersonal-intergroup dilemma is one that has been grappled with in this domain. The basic principle of SIT is that it "addresses the fundamental role of individual and collective identities in the development of intergroup bias" (Dovidio, Gaertner, & Kawakami, 2003, p. 11).

Three models in SIT govern the literature on "the role of categorization" (Greenland & Brown, 1999, p. 505) in achieving favourable outcomes in intergroup contact. These include the decategorisation model (Brewer & Miller, 1984), a model that emphasizes group membership salience in intergroup encounters (Hewstone & Brown, 1986), and finally, the recategorisation model (Gaertner, Rust, Dovidio, Bachman, & Anastasio, 1994) (Brown, Maras, Masser, Vivian, & Hewstone, 2001; Greenland & Brown, 1999, 2000; Islam & Hewstone, 1993; Pettigrew, 1998).

Essentially, in Brewer and Miller's model, the emphasis is on interpersonal contact (Greenland & Brown, 1999). These authors explain that if members of different groups can view each other as individuals, and not merely as members belonging to different groups, then "the psychological utility of the category should be reduced" (Greenland & Brown, 1999, p. 504). As explained by Brown, et al., (2001) the main argument for the interpersonal approach is that salience of group membership may often trigger stereotypical thought and lead to discrimination. However, the argument against this approach is that it interferes with the generalization process, as a focus, primarily on interpersonal contact, may weaken the bonds between an individual and his or her group (Brewer & Miller, 1988; Hewstone & Brown, 1986, as cited in Paolini, et al., 2004).

In direct opposition to the interpersonal approach is Hewstone and Brown's (1986) intergroup approach, which specifies that the saliency of group membership be upheld.

These authors argue that this approach will "facilitate" generalization if the group members maintain identification with the relevant group. Thus any positive changes that occur within the contact situation with one or a few members of the out-group, because of the saliency of group membership, the favourable contact will also be associated with the rest of the outgroup members not in the contact situation.

Finally, Gaertner et al., (1994) recommend a third model which proposes that when two groups come into contact, that the group membership saliency of each group weakens, to allow an overarching, superordinate category, incorporating both groups, to be created. In other words, through a process of recategorisation, the two groups unite on the basis of some, often common, factor. Thus, this model is referred to as the *Common Ingroup Identity Model* (Gaertner et al., 1994)

Which of these models are most effective in contact remains debatable in social science literature, especially pertaining to the former two models. Pettigrew (1998), however, suggests that all three models have a role to play if implemented sequentially. He suggests that the decategorisation model, firstly, is important as it allows members of different groups the space, in the absence of the intimidation of strong saliency of racial membership, to come into contact. As group members get to know one another, it is important that, in time, the saliency of group categorization slowly come to the fore again to allow generalization of contact effects to other outgroup members. Finally, after some interaction and group members getting to know each other, groups may develop a common identity amongst themselves based on one or more shared factors, and may then recategorise into a new group with a combined identity (Pettigrew, 1998). Pettigrew adds though, that reaching the recategorisation stage is the pinnacle of intergroup contact between two groups with regards to SIT. However, reaching this stage will not be easy and will often "not be attained" (Pettigrew, 1998, p. 75).

In addition, while Pettigrew's (1998) suggestion of the sequential incorporation of the models may seem ideal theoretically, the hope of implementing such a complex model in practice is doubtful. The implementation of this triad may be complicated by other factors. For example, although the model seems to ameliorate the problem of generalization by incorporating the interpersonal, followed by the intergroup model, it does not address an additional problem associated with the intergroup model. This

problem involves the occurrence of intergroup anxiety that may arise in situations where group saliency is particularly strong, resulting in members experiencing anxiety about the interactions between members belonging to different groups (Stephan & Stephan, 1985; Wright, et al., 1997). For example, research in America has shown that whites' contact with blacks (Afro-Americans) is often characterized by anxiety (Ickes, 1984; Omoto & Borgida, 1988; Stephan & Stephan, 1985, as cited in Dijker, Koomen, Van den Heuvel and Frijda, 1996, p. 325) Similarly, intergroup anxiety was also reported by Dijker, et al. (1996) with regards to Surinamers (black people from the Netherlands, but who identify with white culture) and people from Turkey and Morroco (they follow Islamic traditions and are of low socioeconomic status). Despite its importance, however, literature in SIT, has received criticism for its poor focus on affect, for example, intergroup anxiety, in comparison to the typical focus on cognition (Greenland & Brown, 1999, 2000).

Intergroup anxiety

Among the body of contact theorists and researchers, a number have noted the crucial role that affect has to play in intergroup contact (Pettigrew, 1998; Pettigrew & Tropp, 2000, Stephan & Stephan, 1985). Whereas positive emotions, such as intimacy, aid in achieving favourable outcomes (Amir, 1969, 1976; Pettigrew, 1998), negative emotions such as anxiety may hinder such results (Stephan & Stephan, 1985). With this, research on intergroup anxiety presents a third exigent topic, in addition to contact theory and SIT, in social science literature, aimed at improving intergroup relations.

Stephan and Stephan's (1985) proposed theory on intergroup anxiety is keystone in the literature on this topic and has formed the incentive and basis for a number of later studies on intergroup anxiety (Britt, Boniecki, Vesio, Biernat, & Brown, 1996; Dijker, 1987; Greenland & Brown, 1999; Islam & Hewstone, 1993; C. W. Stephan & Stephan, 1992; G. W. Stephan, Diaz-Loving, & Duran, 2000; W. G. Stephan & Stephan, 1985, 1989; to name a few). The collective aim for most of this research has been determining the role of anxiety in the way that members of different groups interact with each other.

Intergroup anxiety may be defined as "the anxiety that people experience in interactions with members of another group" (Blair, Park & Bachelor, 2003, p. 151-152), hence the use of inter-group. With this, it seems that intergroup anxiety involves affective

processes of 'tension or nervousness' or 'distress' (often preceding the intergroup contact) (Stephan & Stephan, 1985; Plant & Devine, 2003), be it intercultural, interracial or involving combinations of any two or more members belonging to different groups. Other forms of descriptions have included "fear, uncertainty, distrust and the action tendency to avoid/escape" (Dijker, et al., 1996, p. 313).

Basically, the main tenets of Stephan and Stephan's (1985) (based on Anglo and Hispanic Americans) theory involve the influential role previous intergroup contact and the group members' level of prejudice plays in predicting the amount of intergroup anxiety experienced. On the one hand the more intergroup contact group members have experienced, the less anxiety they will experience. On the other hand, the greater intergroup bias and stereotypes held of the other group, the more anxiety will be experienced. These findings have been consistent in research on intergroup anxiety (Britt et al., 1996; Dijker, 1987; Greenland & Brown, 1999; Islam & Hewstone, 1993; W. G. Stephan & Stephan, 1985, 1989). In summary and as support for this theory shows, there exists a relationship between degree of intergroup exposure or intergroup contact and the existence of prejudicial attitudes, and intergroup anxiety: As contact decreases or prejudice increases, so intergroup anxiety increases.

In attempting to expand on this idea more formally, it is necessary to discuss the model of antecedents and consequences of intergroup anxiety as proposed by Stephan and Stephan (1985). Also see Plant and Devine (2003) for a similar and more recent model.

Antecedents

According to Stephan and Stephan (1985), when members of different groups come into contact, certain factors may influence the level of anxiety experienced. In their model, these researchers describe three such antecedents to intergroup anxiety. These include: previous intergroup contact, previous ideas or cognitions about the outgroup, and how the interaction is organized with regards to situational factors when members of different groups enter into contact (Stephan & Stephan, 1985). Each of these antecedents will be discussed briefly.

The influence of intergroup contact on intergroup anxiety occurs in two ways: due the amount of intergroup contact experienced, and with regards to the nature thereof

(Stephan & Stephan, 1985; Islam & Hewstone, 1993, also see Stephan & Stephan, 1989).

With regards to the amount of contact, the argument here is simple and has already been introduced in relation to the contact hypothesis (Allport, 1954). Regular intergroup contact equips members of different groups with knowledge of each other. Conversely, a lack of contact often equals a lack of knowledge, and this in turn places out-groups at an estranged level. People are often apprehensive towards those things for which they lack knowledge or familiarity and this may often result in anxiety towards interacting with the 'unknown' (see Britt et al., 1996, p.1178). Thus, if two estranged groups enter into contact, they are most likely to experience anxiety in not knowing what to expect. Based on the histories of race relations in most multi-ethnic societies, such estranged groups are most likely to fear and anticipate negative outcomes (Blair, Park, & Bachelor, 2003; Stephan & Stephan, 1985). Thus, Stephan and Stephan's (1985) conjecture that anxiety arises from the anticipation of negative consequences is keystone in this literature.

In addition, lack of contact often handicaps one in terms of knowledge of behavioural cues, in other words, guides as how to behave in interactions with other groups (Plant & Devine, 2003). Lack of knowledge with regards to behavioural cues may often result in anxiety, as group members may often fear that they may act in inappropriate ways, which may either be humiliating, or be of such a nature that they appear prejudiced (Plant & Devine, 2003; Britt, et al., 1996). In a study by Greenland (1999), "Thirty-three percent of participants reported feeling intergroup anxiety because they wanted to avoid appearing to be prejudiced" (p. 171). In essence, the underlying principle in this argument stresses the importance of contact. As previously mentioned, contact allows one to familiarize oneself with different outgroups in intergroup encounters resulting in less hostility and intergroup prejudice towards outgroups. This knowledge aids in lowering anxiety because ingroup members now know what to expect in interactions with outgroup members. This knowledge may also include guides as to appropriate behaviours in relation to the groups. In addition, equipped with such knowledge, in-group members will be in a position "to present a desired impression" to out-group members (Plant & Devine, 2003, p. 792; see Britt et al., 1996, for a similar argument).

They are thus in greater control of the interaction and may consequently experience less anxiety.

Despite the deemed importance of the amount of contact, researchers have however found the quality or nature of previous intergroup contact to be of greater significance than the quantity thereof, in its effect on the degree of intergroup anxiety experienced (Britt et al., 1996; Greenland & Brown, 1999; Islam & Hewstone, 1993; Stephan & Stephan, 1989). With regards to the nature of past intergroup relations, the degree to which past intergroup experiences are positive or negative will undoubtedly influence the concern felt about future interactions with these outgroups. For example, if previous interactions with an out-group were characterized by conflict, it is highly unlikely that the ingroup will anticipate future interactions positively. This is then likely to result in anxiety in the anticipation of future interactions with members of that group (Stephan & Stephan, 1985). The results of a recent study has shown that "…even a single expression of prejudice from an outgroup member can have negative implications for intergroup relations, both in terms of how group members feel in intergroup contexts, and their expectations for future cross-group interactions" (Tropp, 2003, p. 144). These results were consistent for both laboratory and real groups. These findings reflect the importance of positive, previous intergroup contact and its implications for future intergroup relations.

According to Stephan and Stephan (1985), previous ideas or cognitions about the out-group, in other words, how in-groups perceive outgroups, or the degree of intergroup prejudice, is also a factor determining the amount of anxiety experienced. This factor is closely linked to the previous factor of contact as the nature (either positive or negative) and amount of contact, if any, will largely influenced how the outgroup is perceived. For one, lack of contact may result in the out-group being perceived as different or 'other' (Stephan & Stephan, 1985) or may result in stereotypical ideas of the outgroup. If ingroup members are prejudiced towards outgroup members or perceive outgroup members as prejudiced, it is unlikely that they will anticipate positively, future intergroup interactions with the out-group. Either way, they are likely to regard the outgroup members in a negative and possibly threatening light and will thus, most likely, anticipate future relations with much anxiety. Thus, as described earlier, there exists a relationship between stereotyping and intergroup anxiety (Stephan & Stephan,

1985). Islam and Hewstone's (1993) work with Muslims and Hindus has also reflected this.

Finally, the structural conditions or situational factors under which members of two groups come into interaction also have implications for contributing to intergroup anxiety (Stephan & Stephan, 1985). These include for example, the particular function of each group in the contact situation, in other words, the organization of the contact, the composition of the groups in interaction, the status of each group in relation to the other, what degree of interdependence is required and the nature thereof (Stephan & Stephan, 1985). What one may notice about some of these situational factors is that they are the factors that, when optimal, aid in bringing about favourable contact. Thus, if equal status groups, operating in cooperative interdependence results in favourable contact, it is likely that unequal groups in competition will result in unfavourable contact, and consequently in anxiety as previously discussed. In addition, if two groups enter into interaction with unequal composition, anxiety may result from dominance of one group over the other (Stephan & Stephan, 1985).

An important factor with regards to the antecedents discussed is that they all in some way, implicate the importance of contact and could all be alleviated by frequent intergroup contact, as per the contact hypothesis, proposed by Allport (1954). Other models of antecedents / determinants of intergroup anxiety have included some or all of the above-mentioned (see Britt et al., 1996) factors.

Consequences

In addition to the antecedents, Stephan & Stephan (1985) also describe the consequences of intergroup anxiety on intergroup relations. Generally, research on intergroup anxiety has found the effects thereof to be detrimental to intergroup relations (Dijker, 1987; Stephan & Stephan, 1985). Among the effects reported is that due to the expectation of negative consequences, intergroup behaviour may become disdainful and negative, even to the point of violence (Stephan & Stephan, 1985; Smith, 1999 as cited in Blair, Park & Bachelor, 2003). However, the major effect and detriment that intergroup anxiety may result in is the avoidance of intergroup contact with the out-group (Dijker, 1987; Dijker, et al., 1996; Stephan & Stephan, 1985). A lack of intergroup contact, however, is likely to produce intergroup anxiety as proposed by

Stephan & Stephan (1985), as the opportunity for dispelling erroneous ideas or stereotypes is not presented. If anxiety results in possible avoidance then, one may comprehend the dismal outcome of this cyclical event. Moreover, if groups experience intergroup anxiety in interactions with other groups, the unease displayed by the ingroup may in fact be interpreted by the outgroup as prejudice, creating hostility between the two groups (Britt et al., 1996). As prejudiced people may often evade or expose themselves to a lesser amount of intergroup contact (Pettigrew, 1998; Amir, 1969) than non-prejudiced people, this may also result in extremely harmful effects for intergroup relations.

Furthermore, research on intergroup anxiety has been criticized due to a methodological flaw. In such research, participants are most often asked how they would feel if they were in a situation in which they were the only member of their group interacting with a number of outgroup members as compared to interacting within the bounds of their ingroup. Blair, Park and Bachelor (2003) note this trend in a number of research articles on intergroup anxiety (Brown et al., 2001; Greenland & Brown, 1999; Islam & Hewstone, 1993; W. G. Stephan & Stephan, 1985, 1989; Stephan et al., 1998, 1999, 2000, as cited in Blair, Park, & Bachelor, 2003). As these authors point out, the problem here is that no clear guides are given for the type of situation participants must imagine. One may immediately see the problem here. Different people will construct different relative situations depending on their different levels of prejudicial attitudes and past history of intergroup contact, and with this, they will experience different levels of anxiety depending on the situation they construct (Blair, Park, & Bachelor, 2003, p. 153).

In summary then, the direct and indirect cross-race friendship hypotheses have developed as a result of the demands of all three aforementioned systems, namely, cross-group friendship research, social identity theory, and intergroup anxiety literature. All three domains of research are aimed at improving intergroup relations.

Returning to the extended contact effect, the authors suggest this model as the more useful alternative to the conventional direct cross-group friendship model, for the most part, because it seems more equipped in dealing with the problems of generalization and intergroup anxiety. Although Pettigrew (1998) proposed an idea for dealing with the

issue of generalization, its multi-faceted nature makes its implementation complex. Thus, the solution offered by the indirect cross-group friendship hypothesis seems to be of greater practicality (see Paolini et al., 2004). Paolini et al. (2004) explains. Firstly, because the ingroup member is not directly involved with the outgroup member, category saliency may be maintained, while simultaneously allowing positive effects to be generalized to other outgroup members. Even though this saliency is maintained, the anxiety that may usually characterize such contact may be lessened because of the indirect contact involvement. Generally, however, because the contact is not direct, all of the threats to anxiety that could occur in direct contact are weakened. Secondly, Paolini et al. (2004) also suggested that indirect cross-group friendships might result in greater proliferation of positive contact relations, as it does not require each person to have a direct cross-group friendship. One cross-group friendship, based on this extended effect, could result in multiple positive contact effects. Finally, as people may fear social or peer disapproval of intergroup contact, for example in the Deutsch and Collins (1961) study discussed earlier, the prolific effect of extended contact hypothesis may be advantageous in that it might aid in a simpler means of establishing a climate of social approval as more people are affected by its extended, indirect effect. For one to observe friendly intergroup relations may alleviate personal pressures or threats of experiencing it oneself and seeing it occur may lead one to believe that it is socially sanctioned and acceptable. This effect was found in Wilner et al., (1952):

> The women who live closer to Negroes, it appears, are not only more likely to have more intimate types of contact with Negroes: having more opportunity to observe other white women associating with Negroes, they are also more likely…to believe that interracial activities are socially approved (Wilner, et al., 1952, p. 55 as cited in Wright et al., 1997, p. 74).

Research has provided support for the extended contact effect in both experimental and naturalistic contact settings (Wright, et al., 1997). In addition, there is support for a 'causal direction', "from knowledge and observation of a cross-group friendship to more positive intergroup attitudes" (Wright, et al., 1997, p. 87). Furthermore, based on the frequent rarity, instability, and unreliability of opportunities for direct intergroup contact, and the difficulty achieving optimal contact, and owing to the history of

conflict in many multicultural societies, it is "unlikely that a large number of group members will have optimal contact experiences" (Wright, et al., 1997, p. 87).

In closing, whether direct or indirect, research on friendship generally provides an important concomitant to contact research generally. In addition, it also provides an independent and active area of research in social psychology, also of enormous weighting. A review of this literature follows.

Friendship

Contact inquiry and friendship study have long existed as popular complementary fields of research in social psychology. Not only does the contact that occurs in friendship 'invoke' the earlier-mentioned processes that bring about favourable intergroup contact (Pettigrew, 1998), but it also embodies the optimal contact setting originally suggested by Allport (1954) (Pettigrew, 1997). Of the conditions specified by Allport, it is equal-status contact that friendship particularly provides (Aboud, Mendelson & Purdy, 2003). Contact also underlies friendship and may play an active role in its conception. For example, because intergroup contact aids in dispelling stereotypes, this may, in turn, create more favourable peer relations, thereby increasing the number of peers available for friendships (Howes & Wu, 1990). The conditions describing friendship essentially present the kind of situation intergroup contact is aimed at achieving. Thus, many of the conditions put forward as essential for contact are in fact, as will be discussed, the conditions that define friendship. Thus, there exists an intimate relationship between contact and friendship. It is for this reason that Pettigrew (1998) advocated a situation's "friendship potential" as a fifth condition for the contact hypothesis.

In fact, some researchers have advocated that friendship, among other things, is keystone in the prediction of blacks' racial attitudes (Ellison & Powers, 1994; Powers & Ellison, 1995). According to Ellison and Powers (1994), there exists a relationship between the degree of interracial contact experienced as a child and the probability of cross-race friendships later in life (adulthood). These authors suggest that it is the provision of communicative cues and the dispelling of erroneous information through 'a measure of direct information' that the contact provides, that establishes this relationship (Ellison & Powers, 1994, p. 397). This is however contradictory to the

argument put forward by Wright et al., (1997) for the extended contact effect (see p. 22). Nevertheless, based on the aforementioned points, and on the direct and indirect cross-group friendship hypotheses, the common denominator points to cross-race friendship. For this reason it is not surprising that cross-race friendship has become instrumental in the reduction of prejudice and racial segregation (Khmelkov & Hallinan, 1999; Schofield, 1995; Stephan, 1999 as cited in Aboud, et al., 2003).

The literature on friendship has, for the most part, focused more on children than on adults (Hartup & Stevens, 1997). According to researchers (Aboud, et al., 2003) this may be due to the fact that the most important years in friendship development occurs in childhood. The rationale for this may be that experiences that occur in childhood, including interracial experiences, may be generalized to other experiences later in life. Bearing in mind that these may be positive or negative, such experiences may aid in shaping attitudes to other interracial experiences and may thus serve to encourage or discourage such experiences later in life. Thus, interracial mixing in childhood may serve as a precursor to interracial contact in adolescence and adulthood (Ellison & Powers, 1994; Jackman & Crane, 1986; Patchen, 1982; as cited in Aboud, et al., 2003). With this, researchers refer to childhood as the most influential stage for cross-race relations (Aboud, et al., 2003). It is therefore not surprising that friendship studies have largely focused on children.

With the major focus on children, studies of social networks have particularly focused on the school setting, particularly in the classroom (Hallinan & associates). One reason for this is that the school is the most common setting where students experience intergroup contact (Schofield, 1995 as cited in Aboud, et al. 2003). Khmelkov and Hallinan (1999) explain that a great amount of time in childhood is spent in school and that at school-going age, children, "are most open to socialization, character development, attitude formation and change, and new experiences" (p. 628). Additionally, according to these authors, most students are likely to be affected by socialization at school due to the obligatory attendance instituted at schools.

The notion of friendship

"Friendships are ranked among the things that matter most to children, adolescents and adults" (Klinger, 1977, as cited in Hartup & Stevens, 1997, p. 355). This is most likely

due to the many rewards including intimacy and companionship that friendship may offer at any stage of life. With such an integral part in almost any individual's social life, it is not surprising that a great deal of research in social psychology and sociology be devoted to the study of friendship.

Definitional problem of friendship

The rigorous exploration of friendship has been driven, in part, by a need to define it. The fact is that no formal or standard definition exists for the word 'friend'. The word 'friend' is used to describe a range of relationships and different people attach different interpretations to what they regard as a 'friend'. According to Winstead and Derlega (1986 – with reference to chapters in their books), "…when authors refer to "friendship", they seem to rely on a consensual, but unspecified, idea of what friendship is" (p. 2). Friendship thus lacks a single, standard definition. Due to this "protean quality" (Hays, 1988), 'friends' may refer to a wide range of relationships ranging from casual acquaintances to best friends and any type of relationship in between. This definitional flaw is particularly problematic for results of friendship research. As a result, such research is impeded in generalization and comparison. In the context of research, the absence of a standard definition of friendship may affect both investigators and participants involved in the research (Hays, 1988). Hays explains that if participants are allowed to specify their friends, such specification could indicate a range of different levels of intimacy with regards to 'friend' for each person. However, if left to the researcher, the imposition of a specific definition may exclude a range of 'friends' for some participants. Researchers' description of a 'friend' might exclude whom respondents regard as friends, or it might be different from other researchers' descriptions. In such a situation, a standardized definition of friendship across researchers will still be lacking, and comparison of research still impeded (Hays, 1988).

The definitional problem in friendship research has however been ameliorated by exploring the structure of friendship and by the identification of common factors and processes recognized as fundamental to friendship. Such features and processes have become a basis on which not only to 'define' friendship, but also to identify and distinguish between different levels of friendship, generally.

For the most part, research has defined friendship, characteristically, as a relationship in which there is regular contact (Blyth, Hill & Thiel, 1982; Hirsch & Du Bois, 1989, as cited in Du Bois & Hirsch, 1990) of a voluntary (Bukowski, Newcomb & Hartup, 1996), interdependent nature i.e. in the absence of social pressure (Bukowski, et al., 1996), over an extended period of time (Hays, 1988). In other words, voluntary, frequent contact discerns friendship from other types of relationships.
Friendship also involves a degree of liking i.e. that friends have "a desire to spend time with one another in greater proportion to the time spent with others" (Bukowski, et al., 1996, p. 3). It is therefore expected that friends enjoy each other's company (Crawford, 1977; Davis & Todd, 1982; Weiss & Lowenthal, 1975, as cited in Hays, 1988). Thus it seems that friendship is likely to "arouse positive emotion" (Pettigrew, 1998, p. 72). In addition, researchers have pointed out that there should be an 'expectation of intimacy' (Argyle & Henderson, 1984; Davis & Todd, 1982 as cited in Hays, 1988) or closeness when people are referred to as friends, a condition found to be important for contact (Amir, 1969). According to research such intimacy increases in direct proportion to mutual understanding between friends (Davis & Todd, 1982; La Gaipa, 1977 as cited in Hays, 1988).

Bearing in mind, all these characteristics of friendship, it seems that friendship provides many essential elements for favourable contact. Therefore, researchers have noted the importance of friendship in intergroup relations (Blumberg & Roye, 1979; Cook, 1984, as cited in Pettigrew, 1997).

Determinants of friendship

Race relations are not, however, without complexities. While it seems as though everyday relations popularize intergroup contact, friendship across races have proven far more problematic. People do not engage in contact with anyone; nor does any one person have a desire to spend time with any other random person. Since friendship is voluntary, one would think that whom our friends are, or whom we agree to be friends with, must incur some degree of personal choice. However, according to Epstein, friends are not "selected on the basis of one's individual preferences or decisions" (1986, p. 129). According to Jackman & Crane (1986), friendship choice incurs personal choice to a certain degree, but not free choice. Friendships made throughout life are largely contingent on whom we meet or come across and the conditions under

which we meet them. Thus, what determines friendship choice, in terms of factors that either promote or inhibit friendship, has also generated a wealth of research in friendship literature. Of particular interest have been attempts to understand the preference for certain individuals as friends, rather than others. Demonstrated by its ubiquity in literature, the most powerful influence underlying this preference lies within the sphere of interpersonal attraction. Researchers have examined various processes of interpersonal attraction that underlie friendship choice in both same- and cross-race friendships (Hallinan & Williams, 1989). These determinants of friendship, in accordance with interpersonal attraction theorists and other researchers, have predominantly included similarity, reciprocity and propinquity (Berscheid & Walster, 1983, as cited in Clark & Ayers, 1992, p. 394; Hallinan & Williams, 1989). Although similarity and propinquity have been found to play a more important role than reciprocity in adolescent friendship formation (Clark & Ayers, 1992), (Hallinan & Williams, 1989; Verbrugge, 1977, as cited in Emerson, Kimbro & Yancey, 2002), evidence does exist that has yielded reciprocity as most influential in friendship choice for both black and white high school students (Hallinan & Williams, 1989). Of the aforementioned determinants, Newcomb's (1956) early work on '*the prediction of interpersonal attraction*' also included reciprocal attraction as one of three important determinants.

Similarity

"If there is one "law" of social relations which is almost universally accepted in social psychology it is that similarity leads to attraction" (Brown, 1996, p. 176). Similarity is not only "believed to be a *major determinant* of interpersonal attraction" (Hallinan & Texeira, 1987a, p. 1360), but it is also believed to be the basis thereof (Newcomb, 1961, as cited in Hallinan, 1982, p. 58). Furthermore, it has been conjectured that some degree of similarity between individuals may result in liking (Byrne & Griffit, 1973, as cited in Aboud & Mendelson, 1996). This has been referred to as the similarity-attraction hypothesis (Aboud & Mendelson, 1996). With this, people often select as their friends (are attracted to) those whom they share some form of similarity with (see Aboud & Mendelson, 1996). This is analogous to Newcomb's (1956) statement that "birds of a feather flock together" (p. 577). In a later publication, Newcomb (1961) described the relationship between interpersonal attraction and similarity, with particular regards to attitudes, which he refers to as 'orientations' (p. 5), as follows: "We have shown in

various ways that interpersonal attraction varies with perceived similarity of orientations, according to the hypothesized dynamics of individual systems, at all stages of acquaintance. On late but not early acquaintance, it tends to vary with actual similarity of orientations, so that collective systems become balanced" (p. 221). Conversely, researchers have suggested that "dissimilarity reduces attraction" (Hallinan & Williams, 1987, p. 654).

Thus, some basis of 'common ground' is necessary in interpersonal attraction and subsequently friendship choice. This common ground may include similarity across a range of factors including common demographic traits, similarity in activity preference and attitudinal similarity. Only a few studies have contradicted the similarity-attraction hypothesis (Henderson & Furnham, 1982 as cited in Clark & Ayers, 1992).

A large amount of research has shown that similarity is important on a range of socio-demographic factors. Most consistently, friends have been shown to possess commonalities with regards to race (ethnicity), gender, age and socioeconomic status and that this trend extends from childhood to old age (Adams & Blieszner, 1995; Kupersmidt, DeRosier & Patterson, 1995; Matthews, 1995, as cited in Hartup & Stevens, 1997, p. 361). For the most part, such similarity has been shown to be consistent in the friendship choices of children and adolescents (Hartup, 1983, 1993, as cited in Aboud & Mendelson, 1996). This would explain why the majority of studies on friendship have focused on children and adolescents (Clark & Ayers, 1992). A brief discussion of these determinants follows. It is important to note that the order of discussion in no way relates to a rank ordering of theses determinants in terms of importance.

Race

"It is generally known that students prefer members of their own race as friends than members of another race… being of the same race is a salient factor to students in their choice of friends" (Hallinan, 1982, p. 59). This prevalence of same-race preference has been found in a number of behavioural studies (Schofield, 1979; Schofield & Sagar, 1977; Silverman & Shaw, 1973 as cited in Finkelstein & Haskins, 1983). For an exception see Singleton & Asher (1977, as cited in Finkelstein & Haskins, 1983, p. 503). Thus, same-race friendships are found to be far more recurrent than interracial

friendships (Hallinan & Williams, 1989). This tendency has been demonstrated in a study by Hallinan & Williams (1989). Their results showed little evidence of cross-race friendships within a considerable number of dyads. According to the results, out of a total of "almost a million dyads available for the analysis, only a few hundred cross-race friendships could be identified" (p. 76). In other words, students were "only one-sixth as likely to choose a cross-race than a same-race peer as a friend" (p. 67).

Research shows that this preference for same-race friends can be observed as early as preschool for both black and white children (Finkelstein & Haskins, 1983). Following this, a large literature shows that such same-race preference persists throughout childhood and adolescence (Epstein, 1986; Hartup, 1983, as cited in Du Bois & Hirsch, 1990), where the proclivity towards same-race peers is even stronger (Hallinan & Texeira, 1987a). Research has also shown "a greater own-race preference among older children, particularly among black children (Singleton & Asher, 1979, p. 936). Aboud et al. (2003) investigated whether this preference for same-race individuals was influenced by racial prejudice, such that it instilled a selectivity bias or preference for certain individuals. Results showed that the importance of race in friendship was less attributable to racial prejudice than to the mere desire for similarity.

Cross-race friendships

Despite the preference for same-race peers in friendship choice, however, cross-race friendships do however occur. These friendships have been found to have favourable effects, particularly among children and that the effects are strengthened when children are exposed to interracial schooling and an interracial home living environment (Du Bois & Hirsch, 1990; Ellison & Powers, 1994; Phinney, Ferguson, & Tate, 1997, as cited in Paolini et al., 2004, p. 772). Additional circumstances that may affect cross-race friendship choices include the nature of previous intergroup relations in desegregated settings, for example in interracial schools or classrooms (Carter. et al., 1980), previous racial composition of schools, i.e. before desegregation, and the family context, in terms of their feelings towards interracial mixing (McPartland & York, 1967; Patchen, 1982; St John, 1975 as cited in Epstein, 1986, p. 144).

As mentioned, research has generally shown that friendships among both black and white students are predominantly same-race rather than cross-race (Clark & Ayers,

1992; Epstein, 1986; Hallinan & Williams, 1989). In fact, research shows that in desegregated schools in America, the occurrence of cross-race friendships are only a third as likely as same-race friendships (Du Bois & Hirsch, 1990; Hallinan & Texeira, 1987a, as cited in Aboud et al., 2003). However, early research has shown that the greater proportion of cross-race friendships are made by blacks (St. John, 1975 in Epstein, 1986, p. 144). Research by Howes & Wu (1990) concurs with this finding. Results of their study also found that European Americans had more same-race friends and African Americans had more cross-race friends. However, a later study shows that within race groups, black females and white males had more cross-race friends than black males and white females, respectively (Hallinan & Teixeira, 1987b).

However, research shows that girls are generally less open to "newcomers" than boys (Eder & Hallinan, 1978). Sagar, Schofield, & Snyder (1983) showed that this pattern may extend to cross-race friendships. In addition, in accordance with other research cited, these researchers also showed that blacks were doubly likely to engage in interracial contact than whites (Sagar, et al., 1983). Du Bois & Hirsch (1990) also reported that blacks are more likely than whites to continue cross-race friendships made at school, outside of the school setting.

In addition, a negative relationship between cross-race friendships and grade has consistently been reported (Du Bois & Hirsch, 1990; Hallinan & Texeira, 1987a, b; Singleton & Asher, 1979 (for black students only); Hallinan & Smith, 1984). Research reflects a decrease in the number of cross-race friendships across primary or elementary school (Hallinan, 1982; Singleton & Asher, 1979) extending to senior or secondary school (Asher, Oden & Gottman, 1977; Epstein, 1983a, as cited in Epstein, 1986, p. 141). Researchers attribute this tendency to a desire for similarity as students get older, which results in greater exclusivity in friendship (Hallinan & Teixeira, 1987b).

Cross-race friendships have also been found to be reciprocal (Dubois & Hirsch, 1990) and almost equivalent to same-race friendships on a measure of stability (Hallinan & Williams, 1987). Researchers have however reported that the intimacy may be lower in cross-race friendships (Aboud et al., 2003). However, the argument put forward by Hallinan and Williams (1987) is that being uncommon, or less common than same-race

friendships, that cross-race friendships must occur in (or must be underscored by) the presence of strong attraction in the first place.

Levin, Van Laar & Sidanius (2003) found that early experiences of intergroup prejudice or anxiety, for example, early in college (end of first year), had negative implications for cross-race friendships in subsequent years such that these were few in number in comparison to ingroup friends in second and third years. These results were found while controlling for the extraneous effects of "pre-college friendships and background variables", including gender, religion, country of origin, home language, socioeconomic status, etc (p. 76). However, those who befriended more peers from outgroups in their 2nd and 3rd years showed lower "ingroup bias" and intergroup anxiety at the end of college, once again controlling for the effects of "prior attitudes, pre-college friendships and background variables" (p. 76).

Furthermore, Pettigrew and Tropp (2000), via meta-analysis demonstrated the relationship between cross-group friendship and more favourable racial attitudes. Powers and Ellison (1995) reported similar results, however, only for black Americans. In addition, research conducted by Levin, et al., (2003) reflected the relationship between intergroup contact, lowered anxiety, and cross-race friendships. They showed that cross-race friendships are facilitated by prior intergroup contact such that it lowers anxiety and intergroup bias, creating favourable conditions to establish cross-race friendships.

Sex

Alongside similarity in race, similarity in sex is also important from an early age (Maccoby, 1988, 1990 as cited in Aboud & Mendelson, 1996) and is generally regarded as keystone criterion in friendship selection in children of all ages (Clark & Ayers, 1988; Clark & Drewry, 1985; Schofield, 1981; Tuma & Hallinan, 1979 as cited in Clark & Ayers, 1992). Research shows that the earliest indications of preference for same-sex friendships are evident in preschool, and that this preference extends to childhood (Hartup, 1983, as cited in Graham, Cohen, Zbikowski, & Secrist, 1998). However, upon reaching adolescence, research shows that it is in this life stage that attraction to the other sex and subsequent cross-sex friendships tend to be initiated (Maccoby, 1988, 1990, as cited in Aboud & Mendelson, 1996). In fact, Clark & Ayers (1992) found that

in their study, "similarity in gender was the most important characteristic of adolescent friendships" (p. 401) for both males and females. Sagar, et al., (1983) report that "Romantic and sexual attraction are certainly major components of the increase in male-female interaction during and after early adolescence" (p. 1038).

A number of studies have reported a precedence of sex over race as a determinant of friendship (Graham, et al., 1998; Hallinan & Teixeira, 1987b). In a study by Singleton & Asher, (1979) "race accounted for much less of the variance in children's ratings than did sex" (p. 936). In fact, a number of researchers have reported that cross-race friendships more often occur among same-sex, than opposite-sex peers (Graham, et al., 1998; Hallinan & Smith, 1984; Hallinan & Teixeira, 1987b). Hallinan and Smith (1984) also add that "gender difference may be a greater obstacle to friendship choice than racial preference" (p. 251). In fact, the importance of similarity in sex has been found to take greater precedence than race or age in friendship selections of students of all ages, as well as adults (Campbell, 1964; Gottman & Parkhurst, 1980; Kandel, 1978; Moreno, 1934; Pitts, 1968; St John, 1975; Schofield, 1981; Singleton & Asher, 1979; Tuma & Hallinan, 1979; Verbrugge, 1979; Wheeler & Nezlek, 1977, as cited in Epstein, 1986).

According to research, the likelihood of same-race peer selection increases if peers are of the same gender and age and that this likelihood can be extended to cross-race friendships (Hallinan & Texeira, 1987a). Furthermore, cross-race friendships are likely to have greater stability if peers are of the same sex as opposed to cross-race friendships between boys and girls (Hallinan & Williams, 1987). In contrast to the 'high rate of same-sex friendships', research reflects "a curvilinear, developmental pattern of cross-sex choices of friends" (Epstein, 1986, p. 137). Furthermore, cross-sex friends are more frequently friends than best friends (Epstein, 1986, p. 138). "Hallinan (1978) reported up to 35% cross-sex choices of friends among students who chose only same-sex best friends" (as cited in Epstein, 1986, p. 138).

In summary, with regards to race and sex, it has been suggested that both these features are often most important in the determination of friendship, particularly because they are "visually self-evident" (Sykes,Larntz & Fox, 1976, as cited in Kandel, 1978, p. 310). Because they are "observable characteristics", both race and sex "define readily

recognizable social groups", which peers can immediately identify with (Kandel, 1978, p. 310).

Age

Similarity in age is also undoubtedly a key preference (Hallinan & Smith, 1984) in the selection of friends. Here, the obvious assumption is that the level of enjoyment of various activities is more likely to overlap among similar age peers than in the case of different age peers. In addition, age is also a determining factor in friendship exclusivity, as explained by the nature of adolescent friendships described earlier (also see Hallinan & Teixeira, 1987b). Age is also often concomitant to race and sex in the determination of friendship. For example, "both African American and European American children were more likely to select same-race peers as best friends if they shared the same age and sex (Hallinan & Smith, 1985, as cited in Graham, et al., 1998, p. 246). In addition, age is also concomitant to the reciprocity effect (to be discussed), in that "Both black and white students select as close friends peers who are similar to themselves in gender and age and who choose them as close friends" (Hallinan & Smith, 1984, p. 250).

Status

Another premise of friendship choice on the basis of similarity has included similarity in status (Hallinan & Teixeira, 1987a), specifically, similarity in socio-economic and school status (Griffin & Spates, 1990 as cited in Aboud & Mendelson, 1996). Some research has proposed social status as "the most commonly used measure of peer acceptance" (Hallinan & Teixeira, 1987a; Singleton & Asher, 1977, as cited in Howes & Wu, 1990, p. 537). One reason provided for its importance as a determinant of friendship is that "status similarity usually bespeaks commonfate as well as like-mindedness" (Nahemow & Lawton, 1975, p. 206). In other words, similarity in status often incurs assumptions of similarity in lifestyle and thinking. In addition, Jackman and Crane (1986) add that "…friendship may do nothing to erase an inequality that exists on the basis of socially important characteristics of the participants, such as race or socioeconomic status" (p. 476). In other words, unless peers enter into friendship bearing equal or similar status, the friendship is not likely to infer such equality in

status. Since such status is reported to be important in the development of friendship, this will affect the likelihood of friendship formation.

Furthermore, according to research, there is a greater attraction towards equal or higher status peers than peers of lower status (Hallinan & Teixeira, 1987b, p.566; Sherif, Harvey, White, Hood, & Sherif, 1961, as cited in Khmelkov & Hallinan, 1999). For example, Jackman and Crane (1986) showed that when the socioeconomic position of their black friends improved, there was an associated significant improvement in whites' racial attitudes. This trend has even been found to occur in relation to academic achievement (Hallinan & Smith, 1984; Hallinan & Teixeira, 1987b). Researchers have attributed this tendency to the fact that by associating with peers of higher status; this status may be generalized to friends of the higher status peer (Homans, 1950, as cited in Hallinan, 1982). This has been referred to as the "halo effect" (Blau, 1964; Huston & Levinger, 1978, as cited in Khmelkov & Hallinan, 1999, p. 631). With this, peers of lower status may be less popular (Hallinan & Texeira, 1987a). Due to its powerful influence at times, status has sometimes been listed as one of the forces of interpersonal attraction itself, and not merely as a subset of similarity (Hallinan & Williams, 1989).

Activity preference

The participation and enjoyment of similar activities has also been found to be an important motive for friendship (Werner & Parmelee, 1979) "of all ages" (Aboud & Mendelson, 1996, p. 92), as friends are likely to engage in activities that they can enjoy together. Often, shared interests in activities may serve to promote future interactions between people by the pleasure it offers (Werner & Parmelee, 1979). Alternatively, the lack of shared interests in activities may impede the development of friendship. Thus, an important determinant in the choice of friends may be that of similarity in activity preference

Attitudinal similarity

Often, concomitant to similarity in activity preference is that of attitudinal similarity, as "students establish similar attitudes and values through engagement in common activities" (Hallinan & Williams, 1989, p. 69). With this, it is evident that engaging in certain activities or, exhibiting certain behaviours, can frequently depend on one's

attitudinal values. Thus, Kandel (1978) found that in addition to similarity in race, sex, age and grade, the use of marijuana and other drugs was an additional basis of similarity shared by high school students. In this case it is highly likely that friends engaging in such an activity together should share similar attitudes. Interpersonal attraction theorists have long established a noteworthy association between attitudinal similarity and level of attraction (Byrne & Griffitt, 1966; Byrne & McGraw, 1964; Byrne & Wong, 1962; Newcomb, 1961). "According to Byrne's theory, all one needs to do to increase attraction between whites and blacks is (1) to develop similar attitudes toward a variety of issues and (2) ensure that the attitude similarities are veridically perceived" (as cited in Johnson & Johnson, 1972, p. 121). Johnson and Johnson (1972) also report that even the perception of similarity in attitudes in a particular person, elevates the levels of attraction towards that person. Furthermore, they report that the race of that person does not affect the outcome. Thus, attitudinal similarity may also play an important role in friendship choice.

Research, however suggests that between similarity in activity preference and attitudinal similarity, the greater cause for friendship choice for both males and females may lie in the similarity in activity preference (Werner & Parmelee, 1979). The idea is that people can often have different views, but still enjoy activities together (Werner & Parmelee, 1979). In addition, similarity in activity preference has also been found to be a better predictor of liking (Werner & Parmelee, 1979). However, bearing in mind the long history of literature in which attitudinal similarity has been consistently noted (Newcomb, 1961; Byrne & Griffitt, 1966; Byrne & McGraw, 1964; Byrne & Wong, 1962), its importance cannot be understated. In conjunction with this, Newcomb (1956) states the following: "While I regard similarity of attitudes as a necessary rather than a sufficient condition, I believe that it accounts for more of the variance in interpersonal attraction than does any other single variable" (p. 579).

Perceived vs. actual similarity

An important distinction to be noted and one of the 'challenges to the similarity-attraction hypothesis' is that of perceived vs. actual similarity. Aboud and Mendelson (1996) have reported that the former may be a greater predictor of friendship than actual similarity. They report that "Perceived similarity, being liked, and being different may be more potent selection criteria than actually being similar" (Aboud & Mendelson,

1996, p. 94). Thus, the question posed by the dichotomy, is whether, in choosing a friend, it is the actual or perceived similarity that the friendship choice is based upon. For example, actual similarity may be based on overt features of sex and race. However, race may also be a perceptual feature as individuals may often assume similarity, or dissimilarity on a number of other factors, based on similarity or dissimilarity in race, respectively. For example, people may assume similarity in customs, culture, or background. In addition, once a person has decided on a friend, people may automatically assume similarity with that person (Duck, 1973). Duck (1973) found that the perception of similarity among individuals' "construct systems" in relation to their friends is common. Similarly, Newcomb (1961) described the association between perceived and actual similarity, and interpersonal attraction in terms of balance theory:

> …we conclude that perceived favorability functions not only as an independent, but also as a dependent variable. On earliest acquaintance, presumably, attraction is very considerably influenced by perceived favorability, as independent, but during the acquaintance process it changes in balance-making ways. As a general tendency, individuals come to see others as possessing favorable characteristics in ways that are influenced less by their initial impressions than by the present impressions of other individuals to whom they are highly attracted" (p. 227).

Thus, this is an important factor to bear in mind in the interpretation of results on similarity.

An additional factor to be borne in mind is the difference between perceived similarity in intergroup and interpersonal relations. Whereas perceived similarity on an interpersonal basis may be a major determinant of attraction, similarity between groups may operate differently according to social identity theorists. These theorists do hold that perceived similarity between groups, particularly with regards to beliefs or attitudes, may indeed result in more favourable relations between the groups. (Brown, 1996). However, they also propose that similarity is not more powerful or influential than category salience in determining the outcome of prejudice (Brown, 1996). In addition, these theorists propose that with intergroup similarity, there seems to be "a certain threshold of similarity" (Brown, 1996, p. 180). Brown and Abrams (1986, as cited in Brown, 1996) found that when groups became too similar, in this case with

regards to status and attitudes that the levels of prejudice towards each other increased. It seems that that similarity between groups can be positively effective as long as this similarity does not impinge on each groups' identity (Brown, 1996).

Reciprocity

An additional factor of interpersonal attraction that plays a role in the establishment of friendship is whether "positive sentiment is mutual" between the chooser and chosen friend (Hallinan & Williams, 1989, p. 69). In other words, it is necessary that there is some degree of mutual regard between the individuals entering the friendship. This is explained by the norm of reciprocity, that, *individuals will more likely choose as friends those peers who consider them as friends* (Gouldner's norm of reciprocity, 1960 as cited in Hallinan & Texeira, 1987). According to Gouldner (1960), the norm of reciprocity is "a generalized moral norm…which defines certain actions and obligations as repayments for benefits received" (p. 170). Furthermore, he states that: "Specifically, I suggest that a norm of reciprocity, in its universal form, makes two interrelated, minimal demands: (1) people should help those who have helped them, and (2) people should not injure those who have helped them. Generically, the norm of reciprocity may be conceived of as a dimension to be found in all value systems and, in particular, as one among a *number* of "Principal Components" universally present in moral codes" (p. 171).

According to research, personal characteristics, for example race (Hallinan & Smith, 1984; Hallinan & Teixeira, 1987b), will not affect the efficacy of reciprocity (Hallinan & Williams, 1989). The norm of reciprocity as a determinant in friendship formation also extends across both same- and cross-race friendships, for both black and white students (Hallinan & Smith, 1984; Hallinan & Teixeira, 1987a;b). In addition, interracial friendships in which there is mutual regard for the other as a friend, is most likely to endure greater stability (Hallinan & Williams, 1987). Finally, concomitant with reciprocity in friendship, are greater similarity (Alexander & Campbell, 1964; Cohen, 1977; Epstein, 1983a; Kandel, 1978, as cited in Epstein, 1986), greater liking (Newcomb, 1961 as cited in Epstein, 1986), and extended lengths of friendship (Epstein, 1986).

Propinquity / 'functional proximity' (Khmelkov & Hallinan, 1999)

"Perhaps the simplest – and, in many ways, still the most convincing – of the notions concerning determinants of positive attraction is that of propinquity…other things equal, people are most likely to be attracted toward those in closest contact with them" (theory of propinquity) (Newcomb, 1956, p. 575).

Substantial evidence exists that also supports propinquity as an important determinant of friendship formation (Athanasiou & Yoshioka, 1973; Byrne, 1961a; Festinger, Schachter & Back, 1960; Lawton & Simon, 1968, as cited in Nahemow & Lawton, 1975). Propinquity, however affects friendship formation in a more indirect way. Consider a university setting for example. Within the lecture theatres or residences that students are assigned to or the tutorial groups that students choose to belong to; students are exposed to and thus encounter other peers in these contexts. We could now say that these students and the peers are in propinquity with each other. These students and peers now have the opportunity to interact with each other and thus there exists a greater possibility for the formation of friendship between them. For example, Clark and Ayers (1988) found that "children are likely to choose close friends from peers who are in their classrooms, from the same neighbourhood, or who engage in similar recreational activities" (as cited in Graham, et al., 1998, p. 245). With this, proximity indirectly exerts a certain level of control over whom we choose as friends and the endurance of these relationships over time (Graham, et al., 1998). Such theory is supported by research:

> Since interaction, whether by chance or choice, generally lead to positive sentiment (Homas, 1980), students who are assigned to or choose to belong to the same instructional group or participate in joint cocurricular and extracurricular activities are more likely to become friends than those who are in different groups (Hallinan & Williams, 1989, p. 68).

> Once students are in proximity, other characteristics begin to influence friendship choices. When students have the opportunity to observe each other, they can identify similarities and differences in personal characteristics, attitudes, values, and behaviours among peers. Observed similarities and / or status differences in salient characteristics are expected to become a basis of friendship formation (Hallinan & Williams, 1989, p. 68).

The work of Schofield (1979) and Hallinan & Sorenson (1985) has conceded supportive results (as cited in Hallinan & Williams, 1989). Thus the role of propinquity in friendship formation is that it provides the opportunity for interaction between individuals and thus creates accessibility among individuals for friendship. It makes peers available for interaction. Thus research has reflected that availability is influential in the amount of cross-race friends made by both white and black students (Clark & Ayers, 1992; Hallinan & Texeira, 1987b; Howes & Wu, 1990; Shrum et al, 1988; Singleton & Asher, 1979; as cited in Aboud et al., 2003). In other words propinquity may indirectly affect interracial sociability positively, by creating opportunities for interracial relations (Hallinan & Williams, 1989). With this, propinquity consequently allows for observed similarity between individuals, which in turn, according to the similarity-attraction hypothesis, facilitates friendship.

According to Hallinan & Williams (1989) proximity can be determined either by "chance or choice" interaction. Choice interaction is determined directly by the individual's personal choices. However, in many situations, the level of propinquity is affected by certain organizational factors. These include the size and composition of the groups in the settings concerned. These are the factors that Hallinan & Williams (1989) refer to that create and influence chance interactions, as these factors are often not controlled directly by students' choices. Thus, sociologists have often looked at the "structural and organizational features of the environment that promote interracial friendships" (e.g. Patchen, 1982; Schofield, 1982; Hallinan & Texeira, 1987a & b; as cited in Hallinan & Williams, 1987, p. 653), for example, the number of peers in interaction, as well as the racial composition of peers.

Size is an influential organizational factor in that it determines the number of peers in propinquity, available for 'chance' interaction in a group (Hallinan & Williams, 1989) and thus, implicitly, the degree of opportunity for friendship formation within this group. According to research, "the larger the group, the greater the number of peers available for contact" (Hallinan & Williams, 1989, p. 68). According to these authors (Hallinan & Williams, 1989), this principle applies "regardless of race" (p. 68).
The effect of racial composition is however more complex. Racial composition is not essentially one of the bases of attraction, but it influences the bases of attraction. The importance of the composition of the group is that it "…defines the characteristics of

those peers with whom a student has chance encounters" (Hallinan & Williams, 1987, p. 68). Specifically, racial composition determines the number of 'other-race' individuals available for cross-race interaction, for example, in a classroom (Hallinan, 1986). Thus racial composition within a particular situation may be regarded as influential with regards to interracial sociability between members of different groups in that particular situation (Hallinan & Smith, 1985). Research on intergroup behaviour shows "that opportunities for cross-race interaction influence interracial sociability and friendship" (Schofield, 1978; Patchen, 1982; Hallinan & Williams, 1987; Hallinan & Teixeira, 1987, as cited in Hallinan & Williams, 1989, p. 67). Thus, racial composition may influence the potential for cross-race friendships within a particular situation. Research has shown racial composition to impose a range of differential effects, depending on the composition. These effects are explained by the opportunity hypothesis:

> …the opportunity hypothesis predicts that as the proportion of black students in a classroom increases, the probability that a white student will choose a black peer as a friend will increase. Similarly, as the proportion of black students decreases, the probability that a black pupil will choose a white peer increases. These opportunity arguments may also be applied to same-race friendship choices. As the proportion of blacks increases, the probability of white same-race friendship choices should decrease and the probability of black same-race choices should increase because fewer whites and more blacks are available for choice. For the same reason, white friendship choices are expected to increase and black same-race choices to decrease as the proportion of black students in the class decreases. (Hallinan & Smith, 1985, p. 5)

Confirmatory evidence for the hypothesis exists. Hallinan and Smith (1985) found positive support for the opportunity hypothesis in a longitudinal study conducted in a number of desegregated classrooms. Other researchers have conceded similar results (St John & Lewis, 1975, as cited in Hallinan, 1982). Furthermore, Hallinan and Teixeira (1987a,b) also found results in favour of the hypothesis. However, their results were only pertinent to white students when black students were in the majority.

In some cases, however, there have been alternative or contradictory results. Some of the latter results rather conform to the counterargument that exists to the opportunity

hypothesis. This argument is based on effects of status differences that may occur in intergroup relations characterized by unequal racial composition (Hallinan, 1986; Hallinan & Smith, 1985). It contends that in an interracial setting, where one racial group is in a large majority to the minority group, the minority group may react in certain ways that hinders friendship formation. The minority group may, for example, experience hostile feelings towards the majority group, especially in the case where the majority group has previously been associated with higher status to the disadvantage of the minority group. The minority group might then resent the dominance of the majority group and reject them. Alternatively, the minority group may perceive the majority group as threatening or intimidating, due to the social power of being in the majority and withdraw from cross-race interaction, associating only within the boundaries of their own race (Hallinan & Texeira, 1987a). For example, in a study by Hallinan (1982), blacks tended to segregate more than whites. One conjecture made was that the findings were in support of the "argument that Blacks experience greater discomfort than Whites in desegregated classrooms possibly due to status differences, negative stereotyping, or prejudice and consequently turn to same-race peers for friendships" (Hallinan, 1982, p. 69). Owing to the history of race relations in South Africa, one might expect such patterns in contact situations where the majority group is white and the minority group is black. Another idea put forward is that groups in the "racial minority (in a contact situation) might stick together to maintain racial and cultural identity especially if the racial group is also in the minority in society" (Hallinan, 1982, p. 69). According to Hallinan & Texeira

> Which of the two occurs in a particular classroom is likely influenced by the classroom climate. In classrooms where the atmosphere is supportive of interracial interactions, opportunities for interactions are apt to be the governing factor in cross-race sociability, while classrooms where stereotypes and racial prejudice exist, the minority group is likely to form a tight-knot racial clique (1987a, p. 1360).

Thus, the existing attitudes of the groups in contact as well as the social environment (Hallinan & Smith, 1985) will largely influence the outcome of the dynamics of their propinquity. This indicates the importance of the racial climate with regards to present feelings of the various racial groups towards one another. The social environment in which racial interaction takes place may serve to influence the effect of the opportunity

hypothesis. Thus, the success of the hypothesis rests for the most part on the mood of the social environment.

The importance of racial composition as an indirect determinant of friendship choice is that it is a factor that can be manipulated and controlled (Hallinan, 1982). Thus, racial composition should rather be encouraged as an intervention strategy that can be varied and used to the advantage of improving social intergroup relations. It seems that the most conducive structural situation for contact is struck by there being a reasonably balanced number of black and white students within the contact situation. In accordance with the opportunity hypothesis, the potential for interracial friendship is thereby maximized (Hallinan & Smith, 1985). Furthermore, even though the opportunity hypothesis is often explained in the context of racial composition in a classroom (Hallinan & Smith, 1985), the hypothesis may also be applied to a range of other settings, e.g. a university residence dining hall. In fact, the hypothesis may be applied to any informal setting where unequal proportions of racial groups are present in a potential contact situation. It is for this reason that "researchers have stressed the importance of proportion of racial minority to racial majority children in the classroom for influencing interactions, and influencing friendships" (Hallinan & Smith, 1985; Hallinan & Teixeira, 1987b, as cited in Graham, et al., 1998, p. 246). Few studies have taken this factor into account. For an exception, see Graham, et al., (1998). Their study was unique in that all classrooms had almost equal numbers of black and white students.

Although most studies present the positive effects of proximity as creating the opportunity for groups to come into contact with each other and in time observe similarities, thus leading to friendship, an alternate effect is often neglected. This alternative, reported by Nahemow & Lawton (1975), proposes that proximity offers the opportunity for dissimilar individuals to be friends. According to theories of interpersonal attraction (Byrne & associates; Newcomb, 1961), people gravitate towards people to whom they are attracted. Since similarity has been suggested as one of the bases interpersonal attraction (Newcomb, 1961, as cited in Hallinan, 1982) as reported earlier, individuals would more likely approach other similar individuals. What is to say about dissimilar people then? In a study reported by Nahemow and Lawton (1975), close residential proximity offered the opportunity for dissimilar people to interact and become friends. Thus, in this study, proximity offered much of the same effect as

contact. It is most probable that the close proximity of the dissimilar individuals allowed them to find other similar characteristics other than observable surface characteristics or that it, as contact does, allowed erroneous preconceived ideas to be dispelled. The results of the study also seemed to indicate that friendships between similar individuals do not require as close proximity as dissimilar individuals, as the attraction necessary for friendship between similar individuals already exists as a product of the observed similarity. This seems to place further emphasis on the importance of observable similar characteristics such as race and sex, reported earlier.

The importance of propinquity has also been highlighted because it is an essential component in the literature on both contact and interpersonal attraction (Khmelkov & Hallinan, 1999, p. 632). In addition to the opportunity it provides for contact, as described earlier, propinquity is also a "prerequisite" for contact, and with this, possible friendship, as it either creates, or increases the opportunity for interaction (Blau, 1977; Hallinan, 1982; Hallinan & Williams, 1989; Verbrugge, 1983, as cited in Sigelman, Bledsoe, Welch & Combs, 1996, p. 1315-1316) (Feld, 1981; Hallinan & Williams, 1989; Newcomb, 1961, as cited in Khmelkov & Hallinan, 1999, p. 630-631). Thus, there exists an intimate relationship between contact and proximity. This relationship has been demonstrated in the public housing studies (Deutch & Collins, 1951; Wilner et al, 1952). For example, Deutsch and Collins (1951) and Wilner et al. (1952) reported a relationship between proximity and contact, and whites' friendships with blacks (see Jackman & Crane, 1986). The results of these studies showed the shared effects of contact and proximity. According to Jackman and Crane (1986), personal contact is dependent on proximity (Jackman & Crane, 1986). They describe the two entities as "mutually dependent and mutually reinforcing" as "…each must be present for the other to have an effect, and the impact of each tends to increase as the level of the other increases" (Jackman & Crane, 1986, p. 473). Proximity to a large extent determines who our friends are as it is necessary to come into contact with potential friends first. With this, Festinger, Schachter & Back (1950 as cited in Jackman & Crane, 1986) demonstrated that "proximity was the single most important factor in determining…[friendship] patterns" (p. 467).

With regards to the relationship between proximity and race, researchers have reported differential effects for blacks and whites. Researchers have reported a greater

importance of propinquity for whites than for blacks in determining the outcome of contact experiences (Sigelman, et al., 1996). Similarly, Hallinan & Williams (1987) have suggested that organizational factors, generally, have a greater influence on the friendship choices of whites than on those of blacks. These researchers report that the contact experience and friendship choices of blacks are more affected by qualitative factors such as early contact experiences and the level of social support, e.g. peer approval in the classroom (Hallinan & Williams, 1987; Sigelman, et al., 1996).

Whether considering the opportunity hypothesis or its counterargument, in theory, each affects the likelihood of intergroup friendship, generally, because it affects proximity for interaction and thus the availability of peers. Thus, the effect of propinquity, as explained by the opportunity hypothesis, is that it may indirectly be regarded as a determinant of friendship, along with similarity and reciprocity. Although the argument for the opportunity hypothesis offers a powerful argument for its role in friendship formation, this does not position the other factors of interpersonal attraction as subordinate to it. Despite each process's importance individually, a unified effect of all three processes may offer the best result. Hallinan & Williams explains:

> Individuals are more likely to establish friendship ties with those whom they have opportunities to interact. Given propinquity, individuals are more likely to become friends with those who are similar to themselves in attitudes, values, and behaviours than those who are different (Hallinan & Williams, 1989, p. 68).

However, it is of utmost importance that the person chosen as a friend regards the chooser as a friend too (Gouldner, 1960). From then on the processes of similarity and attraction may facilitate the friendship's process and depth.

In summary then, two fields of interest belonging to both sociology and social psychology, have dominated the preceding discussion. These include the research domains of intergroup contact and friendship. With regards to the former, this area of research boasts incredible pervasiveness and ubiquity spanning over fifty years of research (Watson, 1947; Williams, 1947; Allport, 1954). However, despite its positive influence on a number of policy-orientated decisions, research on contact still faces a number of major criticisms. Among these, a recurring one has been the design for this

research being for the most part, experimental rather than naturalistic. With this the application of a large degree of contact findings in real-life settings is questionable. With regards to the latter, and as discussed, friendship has an important role to play in intergroup contact. More importantly, because it is a phenomenon that develops naturally, it provides the optimal setting for contact. With this, this attribute of friendship, together with its importance in intergroup contact, reiterates the importance of a shift in focus in contact study to naturalistic settings, emphasized by social researchers (Dixon & Durrheim, 2003; Stephan, 1987). This emphasis on naturalistic contact research was, in essence, the rudimentary purpose of the study, initially. Expanding from this basic aim, the bigger focus extended mainly to intergroup 'contact' and 'friendship', both with regards to their effects as individual entities, and with regards to their associative effect. A more informed discussion of the study now follows.

Framework for the present study

This study was conducted in 2 parts. The first part of the study was conducted as an Honours project. This project formed the grounds for the second part of the study i.e. the present empirical research. Therefore, before embarking on a discussion of the Masters research (part 2), a brief synopsis of the Honours project, i.e. part one, follows.

Honours project – Part one

The study was a naturally occurring contact study that was conducted on the seating patterns of black and white students in two dining halls at the University of Cape Town. It was aimed at examining the level of contact between the two groups of students, which was measured by the level of integration in seating in the dining halls. This study was conducted in the latter part of the year i.e. the month of August, since it was believed that by that time, sufficient time and opportunity had elapsed for 'mixing' between the students to have occurred. Fifty random observational periods were carried out during this month. The observations were conducted during the students' dinnertime. The race and gender of each student was recorded.

The method of analysis for the data included both a descriptive analysis, as well as a spatial analysis of the data, using the segregation indices as proposed by Massey and Denton (1988). These indices included "D for evenness, xPy* for exposure, RCO for concentration, SP for clustering, and ACE for centralization" (Massey & Denton, 1988, p. 309). However, due to computational problems, only 4 out of the 5 indices were used in the analysis. The results reflected a consistent arrangement of seating patterns by the students characterized, however, by high levels of 'informal' segregation. These results will be discussed briefly.

As the two dining halls in which the observations were carried out each had two separate wings, results were reported for both left and right sides of each of the dining halls. In addition, as one of the dining halls hosted predominantly male students, and the other predominantly female students, these dining halls were referred to as MT and FT, respectively. Thus, with regards to the descriptive results, the most striking finding was the following: "For the left-hand side of MT and FT, there would be, on average, 6 tables hosting homogenous groups of black students, 3 tables with homogenous groups

of white students, and only 1 mixed table per observation. For the right-hand sides [there was] an average of 5 tables of homogenous groups of black students, a possibility of 1 homogenous table of white students, with, on average, not even 1 mixed table per observation" (Schrieff, 2002, p. 29).

Like the descriptive findings, the results of the indices also depicted this high level of segregation in the dining hall.

The dissimilarity index (D)

In the context of the dining hall, D measures the level of uniformity or "evenness" in the distribution of black and white students in the dining hall (Massey & Denton, 1988). What it reflects is the degree to which black or white students would have to shift position in the dining hall in order to achieve an even spread. The results for D range between 0 and 1, where the former represents an integrated spread, and the latter a segregated distribution of the students. In this study (part 1), the lowest D throughout all observations was 0.6 and the highest D, to which most results were skewed, was a D of 1.0.

The exposure index (xPy)*

As suggested by its name, the exposure index measures the level of exposure black and white students have to each other, based on their seating patterns. In other words, it reflects "the degree of potential contact" (Massey & Denton, 1988, p. 287) between students, based on how they have organized themselves. With this index, as with the dissimilarity index, results also range between 0 and 1, however, conversely. Here, 1 presents the optimal mixing of students and 0 represents the opposing picture of non-mixing or complete segregation. The average scores for all the observations for this index, ranged from a minimum of 0 to a maximum of 0.34.

The centralization (RCO) and clustering (SP) indices

No evidence was found for centralization or clustering tendencies, even though patterns delineating such tendencies could be observed upon physical inspection of the observation sheets. Two possibilities for these results, or lack thereof, have been suggested (Schrieff, 2002). One possibility was that the sample size was too small as these indices were designed for the analysis of residential segregation. The second

reason may have been that these indices were not sensitive to the spatial design and layout of the dining halls.

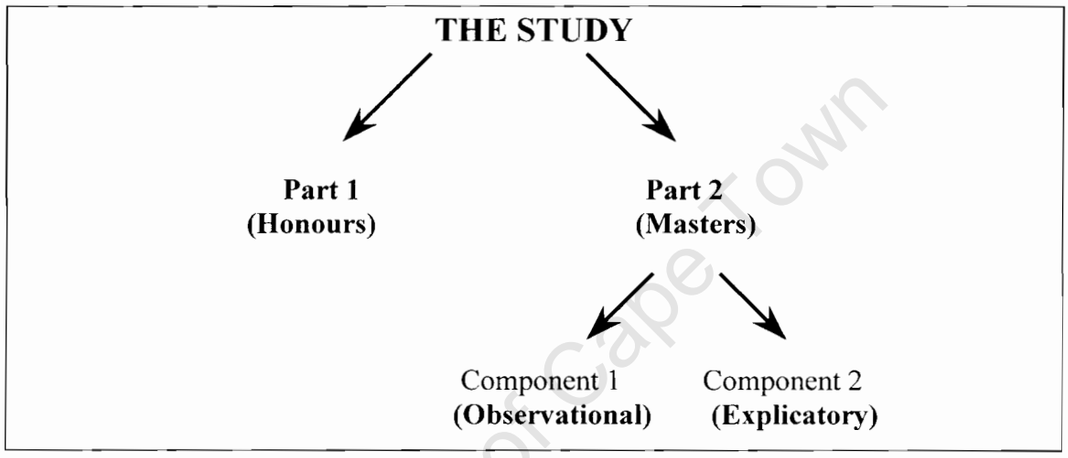
Despite the interesting results, the study however, had two major limitations. The first was its purely observational nature, and the second was the cross-sectional nature of its design. Thus, the many questions that were generated by the observations and the results could not be addressed in that study. For example, because the study was cross-sectional, it failed to demonstrate the process of development of the segregated patterns of seating i.e. whether there was an immediate formation or a gradual construction over time. In addition, because the study was purely observational, it also failed to provide a possible explanation for the initial formation of the segregated seating patterns observed.

At that time the most logical hypothesis that was conjectured for the patterns observed, was friendship. It was highly likely that students were sitting with friends in the dining hall. Researchers have suggested similar ideas for segregation in "unstructured" or "unsupervised" settings (Sagar, Schofield, & Snyder, 1983; Schofield & Francis, 1982, p. 723), under which the dining hall may be categorized. These researchers suggest that it is only natural that students gravitate towards friends in such settings (Sagar, Schofield, & Snyder, 1983). In addition, researchers have suggested that because of the small amount of time students spend in such settings as dining halls, that this is where they will be particularly keen to meet with friends (Schofield & Francis, 1982). However, bearing in mind the high levels of racial segregation in the dining hall, this would then mean that students had predominantly same-race friends.

The question of friendship would be particularly interesting when one considers first-year students; for some students arrive knowing other students while the majority do not. Questions of interest on completion of part 1 of this study included how students decide where to sit for their first meal in the dining hall and subsequent meals thereafter, whether they make friends in the dining hall or not, or whether the patterns observed in the dining hall were patterns of friendships or mere acquaintances.

Masters research – part two

With this, an extension of the Honours study, i.e. the Masters research, was designed in order to provide insight into the questions advanced from this first part of the study. In part, the Masters research was a replication of the Honours project, in that it examined naturally occurring contact between black and white students in a dining hall. However, for the most part, the Masters research was extended to a study of friendship among students, in an effort to address some of the questions and limitations posed by the Honours project. It was hoped that this investigation would provide insight into the bases of students' friendship choice, which, in turn, might provide an understanding of the segregated patterns observed in the dining hall. Thus, there were two components in the Masters research, an observational component and an explicatory one. Diagrammatically, the overall design of the study was as follows:



With this, the prime variables of interest in the study were intergroup contact and friendship, with certain specific issues aimed at being investigated. These were partly in response to the questions posed by part 1 of the study (the Honours project). With this, a number of objectives for the Masters research were established in order to research various issues in relation to these variables. These included the following:

Objectives

1. To examine the developmental process of the segregated seating patterns in the dining hall i.e. whether it stabilizes at the beginning of the year or whether there is a gradual construction of the patterns concerned.

2. To examine the early development of mixing or non-mixing between students.
3. Are the patterns in the dining hall consistent patterns of individuals sitting on the same place everyday (although there is a definite racial trend) or with the same people, or are they patterns of racial groups occupying the same areas everyday, regardless of whether the students move around or not?
4. To determine whether a relationship exists between friendship and the contact patterns observed and if so, to determine whether friendships develop from contact in the dining hall or whether the patterns in the dining hall reflect early formulated friendships.
5. To investigate intergroup friendship patterns among students (Prevalence).
6. To explore the bases of friendship choice (both same and cross-race friendships). What are the similarities or differences in their characteristics?
7. To explore whether group difference or intergroup prejudice influences friendship choice (racial attitudes vs. intergroup friendships).
8. To explore whether these racial attitudes indirectly affect the seating patterns in the dining hall in terms of affecting the comfortability with other-race peers. Also, to investigate other factors that influence where students sit in the dining hall (which has been shown to be predominantly with same-race students).
9. How much exposure have students had to intergroup contact? Are students' descriptions of interracial experiences positive or negative? Is there a relationship between intergroup contact and interracial attitudes?
10. To investigate students' awareness of, & opinions / ideas about what is happening in the dining hall.

Method

Sample / Participants

Broadly, the setting for the Masters research of the study was a university campus, involving a sample of university students. According to Levin, Van Laar and Sidanius (2003), "One setting ideally suited for applying and extending the contact hypothesis is the ethnically diverse college campus environment. Because students are living, socializing, and taking classes with people of different ethnicities, the college experience provides many opportunities for cross-group friendships to develop" (p. 78).

(i) Observational component

The students of two undergraduate, catered residences at the University of Cape Town made up the sample for the observational component of the study. One residence was homogeneously female, the other homogeneously male. These residences will be referred to as FR and SR, respectively. Although the setting was somewhat similar, this was however a different dining hall to the one in which part 1 of the study (Schrieff, 2002) was conducted. Whereas in part 1 there were two dining halls each with two separate wings in which observations were carried out, in part 2 this was a single shared dining hall by the two residences. It was the structure and layout of this dining hall that provided the impetus for the choice of sample. The dining hall was rectangular with three main rows of tables (see appendix A). The tables were relatively fixed, which was useful for the purpose of the study. There was also a balcony overlooking the dining hall (see photograph below). Thus, the structure of the dining hall facilitated easy observational access to the sample.

The sampling domain followed the same observational system as in part one. It was confined to dinner time, since dinner formed part of every meal option available to these students. One meal option available, also excluded weekends, thus observations are confined to weekdays. Thus, no student had been excluded on these bases and therefore each student had an equal opportunity of being observed. The demographics of the sample that was observed are presented in Table 1 below.

Table 1 Racial proportions of all students that have their meals in the dining hall

	FR	SR	Total	%
Black	90	69	159	33.47
Indian	42	38	80	16.84
Coloured	11	18	29	6.11
White	94	112	206	43.37
Unknown		1		
Total	237	238	475	

(ii) Questionnaire component

The sample for the questionnaire component of the study was selected through purposive sampling. This sample was made up by a subdivision of the observed sample i.e. only the first-year students of the observed sample. The number of students initially approached was approximately 194 with 174 students agreeing to participate. The demographics of these students are presented in Table 2 below:

Table 2 Racial proportions of first-years that have their meals in the dining hall

	FR	SR	Total	%
Black	47	34	81	36.82
Indian	20	16	36	16.37
Coloured	4	10	14	6.37
White	47	42	89	40.46
Total	118	102	220	

Design

(i) Observational component

The first component of the Masters study was observational and solely quantitative in design. As previously mentioned, this component of the study was almost entirely based on part 1 of this study (the Honours project, Schrieff, 2002). Due to the disadvantages

of a solely quantitative study of this nature, an additional method of data collection was included in this part of the study. This was the questionnaire component.

(ii) Questionnaire component

This component of the study took the form of a 3-part questionnaire (see appendices B to D), administered over the period of five months. These consisted of both closed- and open-ended type responses. The questionnaires were thus both quantitative and qualitative in design.

Generally, in relation to both components, the study adopted a descriptive and exploratory design. The seating behaviours of students were described, and friendship, was explored on a number of levels as a possible explanation for this behaviour. This element of the design followed from the objectives mentioned earlier, since the aim of each objective was either investigative or exploratory.

The study was also longitudinal in design. Data collection for both the components took place over approximately seven months. With regards to the observational component, specifically, the longitudinal design was aimed at improving the explanatory and inferential limitations of the cross-sectional nature of part 1.

Apparatus

(i) Observational component

With regard to the recordings of the observations, this process was once again a reproduction of the process used in part 1. A simple sketch of the dining hall was used (see appendix A). As mentioned in Schrieff (2002), this apparatus simplified the tabulations of the proportions of the groups for analysis. In addition, it displayed visually, the spatial arrangements of the seating patterns of the two groups; patterns which the indices, used in the analysis of the data, are often not sensitive to.

(ii) Questionnaire component

The friendship patterns of first-years were explored by means of three, newly constructed questionnaires (see appendices B to D). All three of the questionnaires were however posed as "Adjustment to University" questionnaires. Students were also told

that in the questionnaires, there would be a particular focus on first-year students' friendships. What follows now is a short description of each of the 3 questionnaires.

Questionnaire 1

As this first questionnaire was distributed during the students' first month at university, shortly after orientation week, questions were focused on students' backgrounds and their histories with regards to intergroup relations, with particular regards to intergroup contact and friendship. For example, with regards to intergroup contact, students were asked about the high school at which they matriculated, in terms of whether it was multiracial or not. They were also asked to report the proportion of students in their final class that were of a different race to themselves. A 7-point scale was also included on which students were asked to rate previous interracial experiences. With regards to friendships, inquiries were made into students' friends outside UCT, the students they knew upon arrival and students they had met whom they considered to be potential friends. For the most part, information regarding the race, sex, language and religion of these existing or potential friends was requested.

A number of questions were also focused on students' early seating behaviors in dining hall, beginning from their first meal in the dining hall. Related questions included, how they decided where to sit for their first meal in the dining hall and with whom they sat with for this meal (in terms of race and gender) and subsequent meals thereafter.

As this was an 'adjustment to university questionnaire', questions relating to their general adjustment were included. These included, for example, questions concerning their expectations regarding their performance at university in comparison to high school, and possible anxieties students often faced in coping with the transition to university. Students were also asked about clubs or societies that they learned about and were interested in. However, these issues were not relevant to the present study.

Finally, questionnaire one included two attitudinal scales, namely the social distance (Bogardus, 1925, as cited in Foster 1991) and semantic differential (McLaughlin-Volpe, Aron, Wright, & Reis, 2000) scales. As reported by Foster (1991), "social distance has been the method most frequently employed in South Africa to measure intergroup attitudes" (p. 493). In the social distance test, four racial groups were included as the

target groups. These included blacks, whites, Coloureds and Indians. Participants were asked only to complete the responses for race groups other than their own, "at five levels of distance" (Foster, 1991, p. 493): live in my residence, be part of my study group, attend my birthday party, visit my home as a personal friend, and be a boyfriend or a girlfriend. Thus, the scale was adapted to a university context (see Questionnaire 1, appendix B). The form of semantic differential employed was directly adopted from the study by McLaughlin-Volpe, et al. (2000). This form included 6 adjectival pairs including: "warm-cold, negative-positive (reversed scored), friendly-hostile, suspicious-trusting (reversed scored), respect-contempt, and admiration-disgust" (p. 13). Once again, there were four target groups. However, in this case students were required to complete the scale for all the race groups, including their own.

Both of these scales were necessary in order to obtain an early measure of students' intergroup attitudes. As we required a reliable standard measure of the students' attitudes, these two well-known scales were chosen. Both scales were found to be reliable in this questionnaire. The four levels of the social distance scale had Cronbach's alphas of 0.89, 0.85, 0.86, and 0.88 for students' attitudes towards blacks, whites, coloureds, and Indians, respectively. For the semantic differential scale, Cronbach's alpha coefficients for the four segments towards blacks, whites, coloureds and Indians were 0.93, 0.89, 0.91, and 0.90, respectively.

Questionnaire 2

Questionnaire 2 served as a follow-up of three main areas of inquiry. These included students' general adjustment to university, their main friendships made, and a follow-up investigation of their seating behaviours.

With regards to the questions concerning their general adjustment, students were asked about how well they were coping with university, how they experienced the teaching and tutoring, they were asked about their experience of residence-life and university in general, and about their involvement in any clubs or societies.

The most important inquiry in this questionnaire was with regards to students' three closest friendships made by that time. For each of these friends, students reported on a range of factors, including their demographic details, where they had met, why they

regarded this person as a friend, the characteristics of their friendships, and how often they saw each other. With regards to the characteristics of these friendships, 12 of the 16 items included there were taken from the Behavioural Closeness Subscale of the Friendship Closeness Inventory (Polimeni, Hardie, & Buzwell, 2002, p. 151). The main aim of including this section was to investigate students' intergroup friendships and to understand the characteristics that defined these friendships.

According to research, it seems that the manner in which the questionnaire was structured, was favourable for non-biased responses from participants. According to Smith (2002), the content preceding the questions about participants' friends may have an effect on how they respond to questions about their friends: "…prior items about racism and prejudice should increase self-presentation bias by encouraging the reporting of inter-racial friends to counteract implications of bigotry" (p. 581). As described, the content preceding the questions on respondents' closest friends were focused more on university in general.

Finally, the questionnaire also included questions about the students' seating patterns in terms of where they sat, with whom, and why. Thus students were asked about the regularity of their seating patterns, about the demographics of whom they sat with, and about their comfortability of sitting with students of a different race or gender, or with those who speak a different language and why.

Questionnaire 3

The introductory questions for this questionnaire were focused on the university experience: whether participants had made friends and their involvement in residence activities. Once again, this was included to maintain the general presentation of the questionnaires as focused on first-years' adjustment to university.

Of course, there were also questions about the dining hall. As it had been about 5 months by that time, that students had been having their meals in the dining hall, it was essential for the purpose of the study to investigate students' seating patterns then. Once again they were asked about the consistency of their seating patterns and with whom they sat in terms of sitting with friends. One of the important focuses of this questionnaire was to obtain qualitative data on students' views of the patterns in the

dining hall. For example, participants were asked for their views on the consistency of the seating patterns. They were also asked to list factors ranked from 1-10, from most to least important that they thought determined the seating patterns in the dining hall. In addition, they were asked to express their views about what the research would establish about the patterns of seating.

Again, they were also asked about their past interracial experiences at university.

Finally, another focus of the questionnaire was on students' general appraisal of the university and their experience there by that time, their views on the equality in treatment of the different race groups at the university as well as their views on the overall segregation at the university.
Thus questionnaire 3 was for the most part concerned with students' opinions, views and ideas of the segregation and practices of racial equality at the university.

For each questionnaire, a cover letter was attached giving participants general guidelines to the completion of the questionnaire. These cover letters also served as an incitement for the completion of each of the questionnaires, reminding students of payment on the completion of all three of the questionnaires. For questionnaire 1, this letter was also more of an introductory note, and for questionnaire 3, this letter served to thank students for their participation.

Procedure

As each component of the study was carried out independently, the procedure for each component will be described separately.

(i) Observational component

The observational procedure was modeled on the procedure carried out in part one (Schrieff, 2002). In examining the level of intergroup contact between students, students' seating patterns were observed in a dining hall. Campbell, Kruskal and Wallace (1966) point out the usefulness of seating patterns as an indicator of students' racial preferences:

> Where seating in a classroom [or dining hall] is voluntary, the degree to which the Negroes and whites sit by themselves rather than mixing randomly is a presumptive index of the degree to which acquaintance, friendship, and preference are affected by race. (p. 1)

The observations were conducted for almost the entire the dinner period, i.e. 17h40 to 19h30, in 13 sessions, scattered over three months (Feb-April & August, compared to part 1, in which observations were only carried out in August). In each session, the seating patterns were recorded at 10-minute intervals, excluding the first ten and final twenty minutes of the dinner period (usually 17h30 – 20h00), which were shown in Schrieff (2002) to be the least active times in the dining hall. These recordings were carried out from a balcony overlooking the dining hall (see earlier photograph). Eight of these sessions were conducted in the first month in order to observe the initial formation of the patterns of seating. The other five sessions were divided into two sets consisting of three and two sessions of observations. These were carried out in March and August of that year, respectively, in order to observe whether the patterns that were initially observed were still evident or whether it had changed (again as compared to Schrieff, 2002).

One limitation in the Masters research in comparison to part 1 (the Honours project) was that only one observer carried out the observations, whereas in the Honours research, there were at least 2 observers. With this, problems in the identification of students' race, presented "an unchecked source of error" (Campbell, Kruskal & Wallace, 1966, p. 4). However, since only black and white students were recorded, the chance for error was highly reduced. In addition, since the observations were carried out from the balcony overlooking the dining hall, it was important for the observer to remain as inconspicuous as possible. A number of different observers at the same time would most definitely have attracted greater attention from the students.

Ethical considerations

Permission for the observations was sought from the wardens of both residences. The rationale for the study was explained and permission was granted for the observations. The plan was that the wardens would communicate information about the study to the residence house committees, who would then in turn communicate this information to

the residents. It was assumed that individual informed consent from each of the students was not required as the dining hall was taken to be a public venue and because this component of the study was purely of an observational nature, of behaviour that is considered natural. However, in the course of the data collection a number of students lodged complaints concerning the observations in the dining hall. The complaints centered mostly on their lack of knowledge of the study and their concern about what the data would be used for. Other complaints raised concerned the intrusion of privacy where students complained that they had not given their permission for the observations. Members of the male residence brought these complaints to the attention of the researcher. Upon investigation of this issue, it was found that there had been a lack of communication to the students. This was addressed by posting a number of notices around the residences explaining the rationale of the study and that the results would only be used for research and not any devious purposes. Following this, the study proceeded with no further difficulties.

(ii) (Friendship) Questionnaire component

Participants for the friendship questionnaire component required active recruiting. Four students embarked on door-to-door visits to all the first-year students of the two residences for approximately two weeks, bidding their participation. Payment of R30 (R10 per questionnaire) at the end of the data collection was promised upon full participation of students. Students were told that the main purpose of the study was to investigate first year student's adjustment to university, specifically focusing on the process of friendship formation for these students. Permission for this leg of the study was also gained from the wardens of the residences. Out of approximately 194 students approached, 174 agreed to participate. This agreement was verbal. A checklist was kept of those who agreed to participate.

The questionnaires were manually distributed to all those who agreed to participate. The first questionnaire was issued at the end of February 2003. Each participant received an envelope containing instructions, the questionnaire and a code name that they were required to use as a pseudonym for the questionnaire. Participants were instructed to remember the code name for later use on the other questionnaires. An independent researcher to the study was responsible for the issuing of the code names, so as to provide complete anonymity and confidentiality to the participants. Wooden boxes, in

which students could drop the questionnaires, were placed in the foyers of the residences to which the participants belonged. Participants were given approximately two weeks in which to complete the questionnaires. Constant reminders and pursuit on the part of the researcher was required for students to return the completed questionnaires. The second and third questionnaires were issued at the end of April and June 2003, respectively. A similar procedure was followed for both questionnaires as that followed for the first questionnaire.

Ethical considerations

Anonymity and confidentiality were two of the most important ethical considerations for this part of the study. Students were assured of this upon their agreement to participate in the study. It was for this reason that code names were used in the study. The reason for the issuing of such code names instead of allowing students to choose their own was that it provided some uniformity to these code names. The use of an independent researcher to the study to assign these code names was a major factor in attempting to honour the assurance of anonymity and confidentiality.

The issue of whether true informed consent was actually gained may be arguable. It is openly acknowledged that upon recruitment, students were told that the questionnaires were predominantly focused on their adjustment to university and on their friendship formations and not told that they were also focused on intergroup contact and prejudice. However, the basis on which informed consent was gained was not completely false as the questionnaires were generally focused on students' adjustment to university and friendship formation. Issues of race and prejudice were merely embedded among these issues. It was felt that this 'disguise' was necessary for the purpose of obtaining 'true' information. As most researchers would also acknowledge, most self report measures are plagued by issues of social desirability. With this, true responses, especially with regard to sensitive issues such as race and prejudice, is often only obtained through indirect enquiry.

Finally, the use of monetary rewards for participation in the study might pose an additional ethical issue with regard to students' voluntariness. The promise of R10 per questionnaire was meant to be an incentive. After careful consideration, this was thought to be necessary for one important reason. This included the fact that the study

was longitudinal and that its success was highly reliant on participants' compliance over a matter of months. Some form of reward was necessary. Once again, as most researchers would acknowledge, a major problem with this type of research design i.e. survey-type research, especially where the issuing of questionnaires is not direct, is a poor return rate. It is for this reason that many researchers would employ some form of incentive, be it a course credit or monetary reward.

Analysis

(i) Observational component

The analysis of the observations was carried out along similar lines to the analysis in the Honours project. However, this time the analysis was undertaken using only two of the indices of spatial variation recommended by Massey & Denton (1988) for the measurement of residential segregation, owing to the difficulties experienced with the other indices before. These included the dissimilarity (D) and exposure (xPy*) indices. In order to assess whether the results were true patterns of racial segregation and not just random mixing, Monte Carlo simulations were also conducted [3]. These simulations presented a comparative result that might have been obtained if the patterns were merely random and thus if they occurred by chance. Dixon & Durrheim (2003) also employed this method of analysis. They explain that "in each set of computer simulations …, the total population of 'black' and 'white' individuals present during a given observation interval was randomly allocated across the…" (in this case) eighteen tables in the dining hall (Dixon & Durrheim, 2003, p.9).

In addition, the regularity of students' seating patterns at specific tables in the dining hall was investigated. Binomial probabilities were compared.

(ii) Questionnaire component

For the most part, analyses of the questionnaire data were conducted through descriptive methods. However, where required, other inferential statistics were undertaken. For example, in order to compare the attitudinal scores of those participants with, or without cross-race friends, the mean scores were compared using independent samples t-tests. In addition, in order to establish the most influential factors affecting the

[3] Simulations were set at N=2000.

seating patterns in the dining hall, a number of correlations were carried out. Furthermore, as the main focus of the study was on understanding and explaining the seating patterns in the dining hall, an attempt was made to build predictor models for these seating patterns using regression analyses. Forward stepwise regression analyses were carried out. Attempts were made to establish individual predictor models for black and white students, as well as a combined one. Finally, because of the range of open-ended questions included in the questionnaires, qualitative analyses were also carried out. Here a simple process of coding and classifying responses was carried out. The most common responses were then categorized and the rest of the responses were then grouped into an 'other' category.

Results

Sample

The eventual sample size with regards to the questionnaires was N=95. Although 122, 100 and 100 participants returned questionnaires one, two and three, respectively, there were only 95 students who returned all three questionnaires. In terms of racial proportions, the sample was made up predominantly by black and white students, their respective proportions being 45.26% (43/95) and 41.05% (39/95) of the sample. The rest of the sample is made up by 2 Coloured, 7 Indian, and 4 Chinese students, each constituting 2.11%, 7.37%, and 4.21% of the racial proportions of the sample, respectively (see table 3). With regard to the representativeness of the sample, the proportion of white students in the questionnaire sample was highly representative of the total proportion of first-year, white students that have their meals in the dining hall (40.46%; see table 2). However, the proportion of black students in the sample was higher than the actual proportion of the first-year black students that have their meals in the dining hall (36.82%). Furthermore, whereas there were no students among the total of 220 first-years that were listed as Chinese, in the questionnaire sample Chinese students constituted 4.21%. In addition, the proportions of Coloured and Indian students in the sample were also lower than the proportions of Coloured (6.37%) and Indian (16.37%) first-year students that have their meals in the dining hall.

Table 3 Race and Gender Proportions of Questionnaire Sample

	Black	White	Coloured	Indian	Chinese	Total	%
Sex							
Male	12	16	1	0	1	30	31.58
Female	31	23	1	7	3	65	68.42
Total	43	39	2	7	4	95	
%	45.26	41.05	2.11	7.37	4.21		

With regards to gender proportions, the sample was made up by 30 males and 65 females (see table 3). Among the 30 males, 12 were black, 16 white, 1 was Coloured, 0 Indian and 1 was Chinese. Among the 65 females, 31 were black, 23 white, 1 was Coloured, 7 were Indian (this includes all the Indian participants), and 3 were Chinese.

Thus, among the predominant groups, there was a greater female predominance among the black participants (72.09%) and less so among the white participants (58.97%).

Most of the participants were South African (83.16%). Those who were not of South African nationality were for the most part found among the black and Chinese participant groups. Despite all participants not being of South African Nationality, most (87/95) participants, however, reside here. This total includes 37/43 of the black participants, all the white and coloured participants, 6/7 of the Indian participants, and 3/4 of the Chinese participants. With regards to language, most white (33/39) and Indian (6/7), and both coloured participants stated English as their home language. With regards to the Chinese students, 3 stated Chinese as their home language, while 1 stated Cantonese. Among the black students there was greater variety with 14 various languages being stated as home languages by the various black participants. The predominant languages included English (6/43), Xhosa (8/43) and Zulu (8/43). For tables depicting the distribution of age, nationality, country of residence and language, in greater detail, see tables in appendix E.

Objectives

Objective 1

To examine the developmental process of the segregated seating patterns in the dining hall i.e. whether it stabilizes at the beginning of the year or whether there is a gradual construction of the patterns concerned.

The first objective was to assess the developmental process of the patterns of seating in the dining hall. This process is evident in the mean D and xPy* values for February, March and April in table 4. If one recalls from the earlier descriptions of D and xPy*, the results for both indices range from 0 to 1. However, whereas for D-values 0 represents an unsegregated pattern and 1, a completely segregated picture, scores for xPy* are interpreted conversely. With this index, 0 represents no exposure and hence high segregation and 1 represents a high degree of exposure and hence no prejudice.

Table 4 D and xPy* descriptive statistics for February, March and April

	Mean	Minimum	Maximum

D			
February	0.895	0.843	1.00
March	0.894	0.767	1.00
August	0.94	0.88	1.00
xPy*			
February	0.037	0.00	0.091
March	0.033	0.00	0.082
August	0.046	0.00	0.091

Looking at D, the average score for February and March are almost identical, however, results show a slightly greater segregated spread of seating by August. However, what results show as far as how even the spread of seating is, is that an uneven spread of seating forms almost immediately in the dining hall at the beginning of the year and that it seems that this trend is consistent throughout the year. Hence the lowest D-value in our observations is 0.767.

The exposure index, however, reflects a small difference in trend from the D values, with a minor progression to a slightly less average segregated score in August, as compared to February and March. However, it is important to bear in mind, when interpreting the results that overall, the scores do not extend beyond 0.091 in any of the 3 months. It is clear that there is an instant formation and stability of segregated seating patterns among the students.

For individual D and xPy* results for each observational period, please see appendix F. It is important to note that all p-values for individual D and xPy* results were highly significant and that these results were notably different to the simulation results should these patterns have been due to random mixing.

Objective 2

To examine the early development of mixing or non-mixing between students.

The early development of mixing or non-mixing of students is, in part, already evident in the results from objective 1. Results for February and March showed an almost

immediate segregation in the patterns of seating among students. However, in this objective, we also examine a secondary source of information, i.e. from the students' reports of their seating behaviour in terms of whom they sat with for their first meal in the dining hall in terms of race.

Even though most participants do not claim to have known many of the people they sat with for their first meal in the dining hall, it seems that the people participants sat with were mostly of the same race. It is strange though, that when participants were asked how they decided where to sit for their first meal in the dining hall, that many responded in terms of sitting with friends or students they knew or had previously met. This is discussed again later on in objective 4.

With regards to the two predominant groups, i.e. the black and white students, a reverse ordering in responses is noted in terms of proportions of either the black or white students at the first table sat at. For example, if one looks at the proportion of black students at the first table that black and white participants sat at (table 5), the first important comparison can be made in the 'none' category.

Table 5 Proportion of black students at the first table at which respondents sat in the dining hall

Respondent group	All	Most	Some	None	Total
Black	9	20	13	0	42
White	0	1	21	15	37
Coloured	0	0	1	1	2
Indian	0	0	3	4	7
Chinese	1	0	3	0	4
Total	10	21	41	20	92

Here no black participant sat at a table where there were no other black students, yet 15 of 37 white participants sat at tables where there were no black students. In addition, the majority of the responses for the proportion of black students for black participants fall

in the 'most' category, followed by the 'some' and 'all' categories. For white participants, the majority of responses fall in the 'some' and 'none' categories. A similar pattern in responses is observed with regards to the proportion of white students at the first table sat at by black and white participants (see table 6).

Table 6 Proportion of white students at the first table at which respondents sat in the dining hall

Respondent group	All	Most	Some	None	Total
Black	0	2	19	21	42
White	8	25	3	1	37
Coloured	0	0	1	1	2
Indian	0	0	1	6	7
Chinese	0	3	0	1	4
Total	8	30	24	30	92

The majority of responses for black participants here fall in the 'none' category followed by the 'some' category. As can be expected, for white students, the majority of responses fall in the 'most', followed by the 'all' category.

Interestingly, if one examines the proportion of Indian students at the first tables sat at, specifically looking at Indian participants, more than 50% of the Indian participants sat with all Indian students. This result must however be interpreted with caution bearing in mind the few number of Indian participants in the sample. However, it is interesting that such large majorities of black and white participants had no Indian students at their first tables. It is important to bear in mind that although there were only 7 Indian participants in the questionnaire sample, there were however 80 Indians among those who have their meals in the dining hall (see table 7).

Table 7 Proportion of Indian students at the first table at which respondents sat in the dining hall

Respondent group	All	Most	Some	None	Total
Black	0	2	9	30	41
White	0	0	18	19	37
Coloured	1	0	1	0	2
Indian	4	1	2	0	7
Chinese	0	0	2	2	4
Total	5	3	32	51	91

Finally, with regards to the proportions of Coloured students, there also seems to be minimal levels of integration with regards to other-race and Coloured students (see table 8). This result is most likely attributable to the low number of Coloured participants in the sample. Similarly, the fact that the two Coloured participants sat at tables with either some or no other Coloured students may or may not also reflect the effect of these minimal numbers.

Table 8 Proportion of Coloured students at the first table at which respondents sat in the dining hall

Respondent group	All	Most	Some	None	Total
Black	-	-	21	20	41
White	-	-	11	27	38
Coloured	-	-	1	1	2
Indian	-	-	1	6	7
Chinese	-	-	1	3	4
Total	-	-	35	57	92

Therefore, in terms of this objective, there does not seem to be a significant amount of racial integration in the dining hall at the beginning of the year already; this is not to say that there is no interracial mixing, but that it is limited.

Objective 3

Are the patterns in the dining hall consistent patterns of individuals sitting on the same place everyday (although there is a definite racial trend) or with the same people, or are they patterns of racial groups occupying the same areas everyday, regardless of whether the students move around or not?

Here results show that students do not sit at the same table in the dining hall everyday. On two occasions, one shortly after orientation week (questionnaire 1) and the other in a later questionnaire, most participants (92/95 and 88/95) responded that they did not sit at the same table in the dining hall everyday. However, it seems that they 'sometimes' & 'mostly' sit with the same people (see table 9 and 10 below).

Table 9 Did you find yourself sitting with the same people throughout these weeks?	
Never	6
Infrequently	18
Sometimes	**44**
Mostly	26
All the time	1

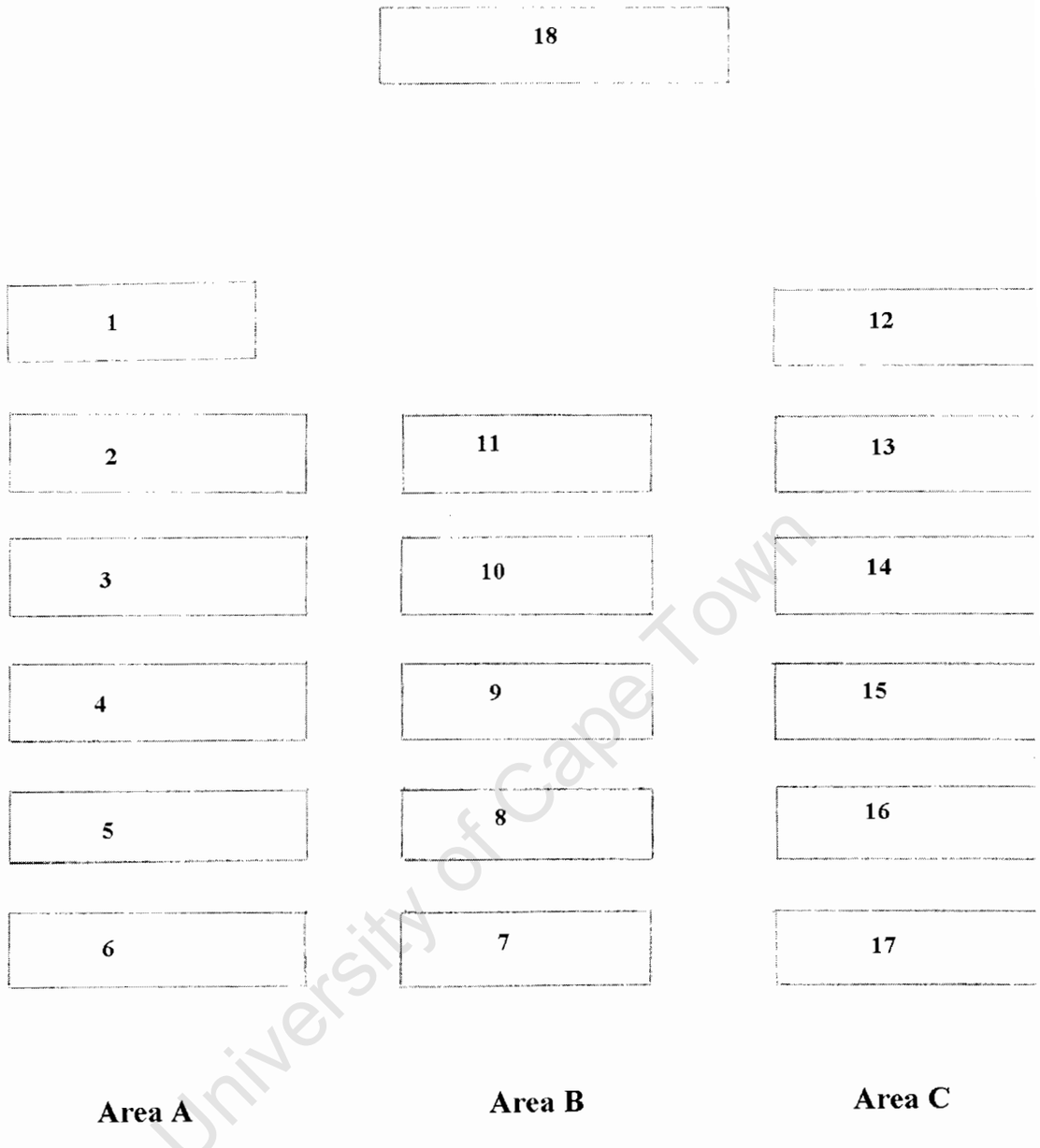
In questionnaire 1, participants were asked if they find themselves sitting with the same people (see table 9) and the highest categories of responses fell in the sometimes (44) and mostly (26) categories. Later in questionnaire 3, participants were once again asked this question (see table 10), however this time the result categories were mostly (48) and sometimes (32).

Table 10 Do you find yourself sitting with the same people everyday?	
Never	3

Infrequently	5
Sometimes	32
Mostly	**48**
All the time	6

As far as distinct racial patterns are concerned, in other words, whether some areas or tables in the dining hall are consistently black or white areas or tables, it would seem that there are certain tables or areas that are 'white' or 'black' spaces, predominantly. For example, if one looks at area A (see fig 1 below), on the whole this area had a higher frequency of black tables over the 13 observations. However, there were also quite a substantial number of white tables and a relatively high number of mixed tables in the area too making the area a bit difficult to classify. Using the Excel BINOMDIST function, the frequency with which this area consisted of tables occupied by occupied by either black, white or students of different races were not found to be significant. However, within area A, table 6 was found to be a 'black' table. Again, using binomial probabilities, the frequency at which this table was occupied by only black students throughout the observations was found to be significant, with $p = 0.035$. Even though tables 1 and 2 were also found to have significant frequencies of black students ($p>0.001$ and $p=0.037$, respectively), this significance could be attributable to the infrequency of students occupying these tables and with this, any one or few observations that were either completely or for the most part black or white would achieve significance.

Figure 1



Areas B and C were however the more racially distinct areas, these being predominantly white and black areas, respectively. In area B, out of a total of 57 tables that were recorded in this area throughout the observations, 35 of these tables were occupied by only white students. Using binomial probabilities, this finding was highly significant ($p < 0.001$). Within this area, 3 tables were also found to have significant frequencies of only white students, these tables being 8, 10, and 11. At these tables, 9/13 ($p=0.002$), 10/12 ($p>0.001$), and 5/9 ($p>0.001$) of the recorded patterns were completely white, respectively.

Finally, in area C, 37/71 of the recorded observations of the tables in this area were significantly black ($p < 0.001$). This figure constitutes slightly more than half of the observations recorded for this area. Once again, within this area, 2 individual tables were significantly 'black' tables. Again this implies that the frequency at which those tables were occupied by only black students was found to be significant using binomial probabilities. These were tables 15 ($p=0.035$) and 16 ($p>0.001$), these tables having 7/13 and 10/13 of the observations as black.

Objective 4

To determine whether a relationship exists between friendship and the contact patterns observed and if so, to determine whether friendships develop from contact in the dining hall or whether the patterns in the dining hall reflect early formulated friendships.

As we recall from objective 3, all participants reported that there are students from their residence that they regularly sit with in the dining hall. When asked to classify these students, 78 participants labeled those, regularly sat with, as friends, the rest falling into categories of acquaintances (10) or colleagues (3), or combinations of the aforementioned categories. Many participants also reported that they sat with all (57) or at least some of the 3 friends closest friends reported in questionnaire 2, in the dining hall. In response to how many of the people that participants share tables with, are regarded as friends, the majority of participants' responses fall in the most (43) category. This was followed by the some (26) and all (18) categories. Only 1 person reported that they did not regard anyone they sat with as friends.

In addition to this, when asked how they decided where to sit for their first meal in the dining hall, a fair number of students reported that they either went or sat with friends (24). However, an even greater number of participants merely reported that they went with someone they knew or had previously met (43), but did not specify them as friends. Nevertheless, participants still reported that friends continued to play an important role in determining where participants sit in the dining hall over the following months. This was evident in participants' nominations of the most to least important factors in determining the seating patterns in the dining hall in questionnaire 3. Students were asked to rank order certain factors from most to least important (1-10, respectively), that they thought determined the seating patterns in the dining hall. These factors included friendship, same year of study, language, religion, similar culture, race, same university subjects, similar politics, gender, and other. However, this task proved problematic as most students rather rated each factors on a scale from 1-10 such that, for example, in some cases 5 factors were given a rating of 10, 3 factors a rating of 5, etc. Only 31 participants actually rank ordered these factors. With this, an alternative method of analysis was decided upon. As we were mainly interested in the most important factors that determined the seating patterns in the dining hall, it was decided that all the factors rated as 1 or 2 by participants would be grouped, in order to determine this. The first of these findings, i.e. those factors that were rated as 1, is presented in table 11 below:

Table 11 Factors ranked as the most important in determining seating patterns in the dining hall

Friendship	Same year of study	Language	Religion	Similar culture	Race	Same university subjects	Similar politics	Gender	Other[4]
55	10	8	8	6	6	5	4	2	2

Table 11 shows that friendship was indeed the outstanding factor among those reported as the most important in deciding where to sit in the dining hall. However, it is important not to neglect the fact that there were a range of other reasons, however minimal, provided by a number of participants that they thought were most important in

[4] Here the two responses included as 'other', refers to 'intellectual ability' & "If I want to be alone, I look for an empty table"

determining the seating patterns in the dining hall. The most frequent of these included that students in the same year of study often sit together, followed by language and religion. Others, however negligible, reported that having similar attitudes or being of the same race were the most important determinants, while the lowest numbers of responses belonged to factors of similar politics, gender or the 'other' category.

With regards to the second most important factor, here same year of study was now reported as most important (see table 12 below).

Table 12 Factors ranked as the 2nd most important in determining seating patterns in the dining hall

Same year of study	Friendship	Language	Gender	Similar culture	Race	Same university subjects	Religion	Other[5]
18	13	8	6	6	6	3	2	1

However, friendship was still almost as frequently reported as same year of study. With regards to the rest of the factors, there was a similar trend in the frequency of responses to for factor 2, as for factor 1, except for gender and religion, which seem to almost swop positions in terms of frequency.

In terms of the most important factor in determining the seating patterns in the dining hall, it seems that friendship was the obvious, most influential factor, reported by 68 participants as either the 1st or 2nd most important factor. With this, it seems that in culmination, all the results reported above point to an important point that a relationship does indeed exist between friendship and the contact patterns observed.

With regards to whether participants meet students in the dining hall or whether the patterns in the dining hall reflected already formulated friendships from elsewhere, it seems that the latter is the case. Only 30 participants reported meeting students they sat with in the dining hall, while 36 reported meeting students they sat with during orientation week and 79 participants reported sitting with students that they had met in res. Only 13 students reported sitting in the dining hall with students that they did not know.

[5] Here the response included as 'other' refers to 'good conversationalists'

Objective 5

To investigate intergroup friendship patterns among students (Prevalence).

With regards to friends outside UCT, many participants report having friends of a different race (77/95), of the opposite gender (93/95), who speak a different first language (76/95) or who are of a different religion (72/95).

However, among those who reported knowing other students at the university upon arrival (90/95), the majority of participants reported that only some (45/90) or none (36/90) of these students were of a different race. Similar results were found for whether these students known upon arrival were of the opposite gender (some = 60; none = 19), spoke a different first language (some = 35; none = 38) or were of a different religion (some = 35; none = 45). Most of these students known upon arrival were at the same high schools as participants (78) or were friends, generally (61).

With regards to 'potential' friends, 94 participants reported having met students they considered to be potential friends. Once again the predominant categories were 'some' (61/94) and 'none' (22/94) when asked how many of these 'potential' friends were of a different race. The 'all' and 'most' categories were only reported for 2 and 9 participants, respectively. The other variables with regards to potential friends, such as how many were of the opposite gender (most = 18; some = 65; none = 10), how many spoke a different language (most = 19; some = 42; none = 20), or were of a different religion (most = 12; some = 51; none = 25), ranged slightly more into the 'most' than the 'none' category than previously. The 'some' category was still however the predominant category.

An important indicator of intergroup friendship, specifically with regards to interracial friendships, was the three closest friends named by participants (see table 13 below).

Table 12 The 3 closest friends reported by participants with regards to whether they were the same or a different race

	Black	White	Coloured	Indian	Chinese	Total
	n=43	n=39	n=2	n=7	n=4	N=95

Friend 1						
Same-race	36	37	0	3	2	78
Cross-race	7	2	2	4	2	17
Total	43	39	2	7	4	95
Friend 2						
Same-race	37	33	1	4	2	77
Cross-race	6	6	1	3	2	18
Total	43	39	2	7	4	95
Friend 3						
Same-race	34	34	0	4	3	75
Cross-race	7	5	2	3	1	18
Missing	2					2
Total	43	39	2	7	4	95

With regards to friend one, only 17/95 participants reported cross-race friendships. These participants included 7/43 black participants, 2/39 white participants, both Coloured participants, 4/7 Indian participants and 2/4 Chinese participants. With regards to friend two, once again, only 18/95 participants reported cross-race friendships. These participants included 6/43 black participants, 6/39 white participants, 1of the 2 Coloured participants, 3/7 Indian participants and 2/4 Chinese participants. Finally, with regards to friend three, in a similar fashion 18/93 participants reported cross-race friendships. These participants included 7/41 black participants, 5/39 white participants, both Coloured participants, 3/7 Indian participants and 1/4 Chinese participant. Thus, it seems that the total number of cross-race friendships equal 53. However, it is important to note that although there are 53 cross-race friendships mentioned overall, i.e. across friends one, two, and three, only 31 participants engage in these cross-race friendships. This is because in some cases, one participant made three cross-race friendships spanning across these three friends. In fact, five participants reported cross-race friendships for all of these friends. These participants include one Coloured male, one Chinese male, one Black female and two Indian females. Twelve participants reported two out of three cross-race friendships. These participants included three White males, three Black males, two Indian females, three Black females and one

Coloured female. The rest of the participants who reported one cross-race friendship included one White male, six White females, five Black females and two Chinese females. For a tabular display of participants and whom they chose as friends, see appendices G and H.

Objective 6

To explore the bases of friendship choice (both same and cross-race friendships). What are the similarities or differences in their characteristics?

In this objective, we explore 3 bases of friendship choice, namely, the similarities between participants and their chosen friends, the frequency of contact between them, and the characteristics of their friendship.

Similarity

Generally, the most important determinants of friendship choice within the context of this study are similarity across factors such as race, sex and language, where similarity in race would account for the few cross-race friendships reported. As is evident in the results for the '3 closest friends' in objective 5, most participants named same-race friends as their closest friends. As a result, out of 283 friendships, only 53 of these friendships were cross-race / interracial.

With regards to the sex of participants and their friends, there was also a predominant same-sex trend between both same- and cross-race friendships. In terms of all the friendships (both same- and cross-race friendships), there were 67 out of a total of 283 (23.67%) cross-sex friendships. A comparison of the number of cross-sex friendships among same-and cross-race friends showed similar proportions. For cross-race friendships 22.64% of the friendships i.e. 12/53 friendships were also cross-sex. For same-race friendships, 23.91% of same-race friendships were cross-sex.

Similarity in language (perhaps as a consequence to the high rate of similarity in race) was also an important factor evident in the results. Such similarity is evident in the similarity of the spoken language of participants and friends one, two and three. With the exception of six black participants, all other black participants stated one of 14 black languages as their home language, while similarly, the majority of friends one, two and

three chosen by black participants spoke a black language too. With regards to white participants, most white participants stated English as their home language and this was also the language of most friends included as one of the three friends. Although both Coloured participants stated English as their home language, four out of five of friends included as friends one, two, or three for both Coloured participants were not mother tongue English-speakers. However, not much can be drawn from this, as there are too few Coloured participants in the sample. With regards to the Indian participants, here, too, the predominant language for both participants and their friends was English. No Chinese participants stated English as their home language. However, half of the friends chosen spoke English and the other half, Chinese.

As may be expected, in those cases mentioned above where participants and either F1, 2 or 3 spoke different home languages, these friendships were predominantly cross-race. This is to be expected, as it is not uncommon for different race groups to speak different languages.

Frequency of contact

When asked how often participants see each of the three friends, the most popular categories of responses for all participants and their three friends were the 'frequently' and 'all the time' categories, together constituting 96 and 84, 90 and 43, and 81 and 72 of the responses for friend one, two, and three, respectively.

When examining how many of these three friends are in the same residence as participants, for both same- and cross-race friendships, participants reported that 66.49% of both friends one and two, and 56.99% of those stated as friend 3 do reside in the same residence as them. For these participants, this would facilitate frequency of contact.

Characteristics of friendship

With regards to the characteristics of friendship, these did not differ drastically across the same- and cross-race friends reported as participants' three closest friends. As per questionnaire two (see appendix C), possible characteristics included: We spend social evenings together; Our rooms are in close proximity so we share things (CD's, shampoo); We watch TV together; We go on trips together e.g. on weekends; We chat occasionally (e.g. in the dining hall, at res, etc); We pig out together; We visit family

together; We make fun of each other in a light-hearted way; I loan him/her money; We discuss things of a non-personal nature (music, sports, parties); We go to the cinema together; We share personal issues with one another; We get drunk together; We study together / attend lectures together; We keep one another company; and We visit other friends together.

For friend one (N=95), the 3 most common characteristics of friendship for same-race friendships (N=78) included that these friends discuss things of a non-personal nature (67), that they share personal issues with one another (66), and that they spend social evenings together (63). The most common characteristics of cross-race friendships for friend one (N=17) also include the former two characteristics of same-race friends, i.e. that friends share personal issues (16), and that they discuss things of a non-personal nature (14). However, the third highest frequency of response was that some of the friendships include making fun of each other in a light-hearted way (8).

With regards to friend two (N=95), once again the three most common characteristics of the same-race friendships (N=77) included that friends discuss things of a non-personal nature (66), that they spend social evenings together (60), and that they share personal issues with one another (59). The cross-race friendships reported for friend two (N=18), once again included the former two characteristics for the same-race friendships, in the same order, with frequencies of 17 and 14, respectively. However, a third common characteristic, also with a frequency of 14 responses included that these friends also keep one another company.

Finally, with regards to friend three (N=93), once again 'discussing things of a non-personal nature' was the most common characteristic reported for same- (N=75) and cross-race (N=18) friendships. This characteristic was reported by 67/75 participants for same-race friendships and by all 18 participants who reported cross-race friendships for friend three. The second and third most common characteristics for same-race friendships for friend 3, included that friends keep one another company (59) and that they 'make fun of each other in a light-hearted way (58). With regards to cross-race friendships the second characteristic most frequently reported included that friends make fun of each other in a light-hearted way (15). For the third most frequent response, three variables each had frequencies of 13. These variables included spending social

evenings together, that these friends chat occasionally, and that friends keep each other company.

In general, the two factors that were identified the least by participants, in both same- and cross-race friendships included that friends visit family together or that they get drunk together.

Objective 7

To explore whether group difference or intergroup prejudice influence friendship choice (racial attitudes vs. intergroup friendships).

The measures of racial attitudes in this objective were the social distance and semantic differential scores of participants. In this objective only the scores of black and white students were examined, owing to the minimal numbers of coloured, Indian and Chinese participants in the sample.

It is also important to note that because most of the independent variables are dichotomous, point-biserial correlations (r_{pb}) were carried out. With this, the direction of many of the relationships reported is dependent on the assigned numerical code for the analysis, and thus cannot be taken as a true indication of direction.

On examining the Social Distance scores, the response item included a scale from any to none (Any; most; some; few; none), where 'any' was given a code of 4, most a code of 3, etc., and none a code of 0. Thus, with 5 levels of this scale, the scores had a range of 0-20, where 20 represented the highest non-prejudiced score (see questionnaire 1, appendix B).

Descriptive statistics for white participants' social distance scores towards blacks resulted in a mean of 11.05, the scores ranging from 3-20, with a standard deviation of almost 4. For black participants, their mean social distance score towards whites was 12.72, with a range of 5 to 20 and a standard deviation of 4.69. Hence black participants' social distance scores with regards to whites generally, seemed to reflect less prejudice than white participants' social distance scores towards blacks. This is

evident in the higher mean for black participants (closer to 20) and in the fact that the lower end range is higher for black participants.

With regards to the semantic differential scale, here higher scores represent less positive sentiments and greater ingroup bias. Here factors denoting high positive affect were scored as 1; this was the one end of the scale. At the other end of the scale, the factors denoting highly negative affect were scored as 7. Some levels of the scale were reversed scored to meet this trend of scoring. Since the scale had 6 levels, the highest achievable score was 42, which would represent a high degree of intergroup prejudice. The lowest possible score would be 6, which would represent highly positive intergroup sentiments. For white participants, the mean semantic differential score towards blacks was 16.67, these scores ranging from 6-34, with a standard deviation of 7.19. For Black participants, the mean score was 15.1, with a range of 6-30 and a standard deviation of 6.14. Hence, once again, white participants seem to exhibit slightly higher prejudice levels than black participants.

With regards to whether these attitudes have any relationship to students' choices of friends, we refer now to appendix I. Here the social distance and semantic differential scores of black and white participants were correlated with a number of variables. By referring to variables 1-4 in table I1 of this appendix, there seems to be no significant relationship between white students' social distance scores with regards to blacks, and whether they have friends outside the university of a different race, with regards to the number of potential friends of a different race, or with regards to the likelihood of making either same- or cross-race friends. However, when considering the semantic differential scores of white participants towards blacks (see appendix I3), there seems to be a fairly strong significant relationship between the way whites participants feel towards blacks, generally, and whether they have friends outside the university of a different race group ($r = -0.40$; $p = 0.012$). Once again, the other 3 'friendship' variables were not significantly related to white participants' feelings towards blacks.

When considering the social distance scores of black participants towards whites (table 2, appendix I), however, there seems to be a greater association with the 4 'friendship' variables i.e. 1-4, than was established for white participants' scores with regards to blacks. Two of these relationships are significant. The first includes the relationship

between the number of potential cross-race friends and black participants' attitudes towards whites ($r = 0.33$; $p = 0.033$). With regards to this relationship, it seems that the more favourable black students' attitudes towards whites, the more potential cross-race friends reported by participants or vice versa. A second significant association was found between the black participants' social distance scores towards whites, and their estimation of the likelihood of making cross-race friendships ($r=0.36$; $p=0.017$). Once again, as this estimation increased, so did black students' attitudes increase in a favourable way towards whites. A similar trend of association between blacks affective attitudes i.e. their semantic differential scores towards whites, and the number of potential friends of a different race, support this finding ($r = -0.39$; $p = 0.014$) (see appendix I4). The direction of this relationship was similar to those reported before. More favourable attitudes were associated with the increased possibility of cross-race friendships. However, because the semantic differential scale was scored in the opposite numerical direction to the social distance scale, the r-value for this result was negative. In addition, the relationship between whether students have cross-race friends outside university and once again, their social distance scores towards whites, also seemed to approach a significant p-level ($r = 0.28$; $p = 0.074$).

An alternative investigation into whether participants' attitudes affect their choice of cross-race friends was also carried out. Here the social distance and semantic differential scores of those with, and those without cross-race friends were compared. For the purpose of this objective, the measure of whether participants had cross-race friends or not was based on the 3-friends asked about in questionnaire 2. Participants were marked as having cross-race friends irrespective of whether there were 1, 2 or 3 cross-race friends mentioned for each participant.

With regards to the social distance scores of white participants (towards blacks), those with cross-race friends were found to have a higher mean of 12.1 than those without cross-race friends for whom the mean score was 10.69 (see table 13 below).

Table 13 Comparison of social distance scores of whites towards blacks

	Valid N	Mean	Minimum	Maximum	Std. Dev.
White participants without cross-race friends	29	10.68966	3.00000	19.00000	4.000924
White participants with cross-race friends	10	12.1000	7.00000	20.00000	4.012481

Remember that with the social distance scores, the scores range from 0, which reflects high levels of prejudice, to 20, which relatively represents no prejudice. Therefore, it is important also to note that the scores for white participants without cross-race friends range from 3-19, whereas the range for those with cross-race friends extends from a higher 7 to 20.

The social distance scores of black participants towards whites depicted a similar picture. However, the difference between the means of black participants with and without cross-race friends was even greater than among the white participants. The mean score for those without cross-race friends was 11.68, compared to the mean score for those with cross-race friends being 15.42, a score much closer to a non-prejudiced score of 20 (see table 14 below):

Table 14 Comparison of social distance scores of blacks towards whites

	Valid N	Mean	Minimum	Maximum	Std. Dev.
Black participants without cross-race friends	31	11.67742	5.00000	20.00000	4.166430
Black participants with cross-race friends	12	15.41667	6.00000	20.00000	5.071459

However, the range for these scores did not differ much across those with and those without cross-race friends, the ranges for the two being 5 to 20 and 6 to 20, respectively.

The semantic differential scores also differed in the expected direction i.e. that those with cross-race friends would exhibit more positive attitudes towards the outgroup concerned. Here we are once again reminded that the lowest score for this scale towards an outgroup would be 6 and that the highest possible score would be 42, where, converse to the social distance scoring, the higher score represents greater prejudice. For white participants, those without cross-race friends showed a slightly higher mean of 17.21 than those with cross-race friends, for whom the mean score was found to be 15.1 (see table 15 below).

Table 15 Comparison of semantic differential scores of whites towards blacks

	Valid N	Mean	Minimum	Maximum	Std. Dev.
White participants without cross-race friends	29	17.20690	6.00000	34.00000	7.325978
White participants with cross-race friends	10	15.10000	6.00000	25.00000	6.903300

In addition, the upper boundary of the range differed quite substantially between the groups too. The highest score among those without cross-race friends was 34, whereas the highest score for those with cross-race friends was only 25.

The semantic differential scores for black participants differed in a similar fashion. The mean score was 15.75 for those without cross-race friends and 13.58 for those with cross-race friends (see table 16 below).

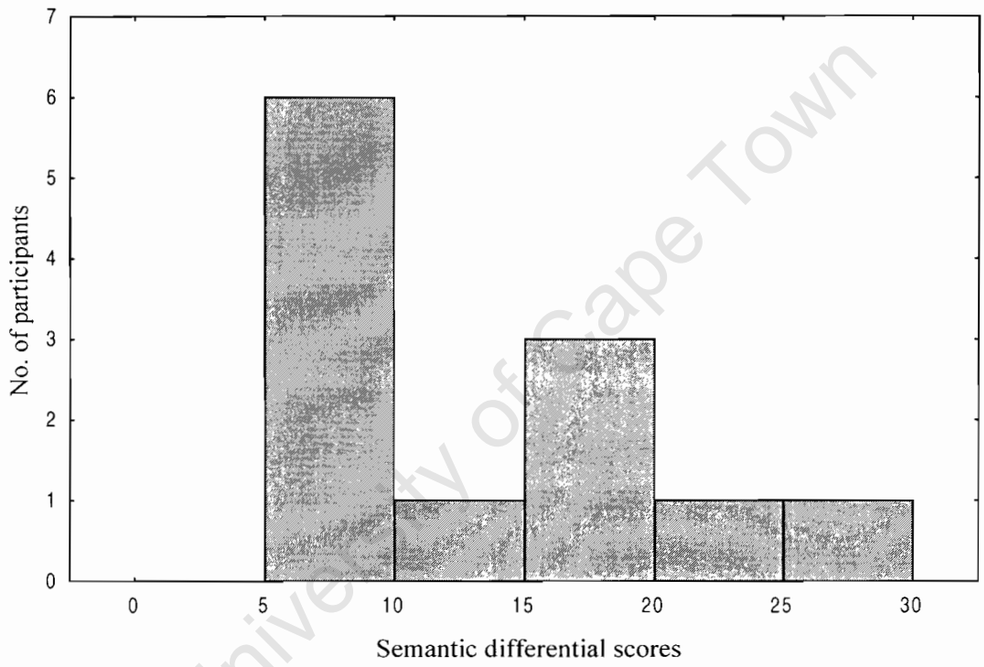
Table 16 Comparison of semantic differential scores of blacks towards whites

	Valid N	Mean	Minimum	Maximum	Std. Dev.
Black participants without cross-race friends	28	15.75000	8.000000	26.00000	5.528545

Black participants with cross-race friends	12	13.58333	6.000000	30.00000	7.415688

However, an inconsistency between these scores in relation to the trends of those before was the higher, upper boundary of the range for black participants with cross-race friends compared to those who did not report cross-race friends for the 3 friends. The range for the former extended fro 6 to **30**, compared to the scores of the latter, which extended from 8 to only **26**. However, when examining the histogram (figure 2) reflecting the distribution of scores below, it is evident that 50% of the semantic differential scores for black participants with cross-race friends ranged from 5-10, whereas only 1 score equalled 30.

Fig. 2. Semantic differential scores of those with cross-race friends (N=12) for blac towards whites



To test whether these whether the differences between the means were significant, t-tests were performed, first individually for the white and black participants for each attitudinal measure, and then as a combined group. The results, presented in tables 17 and 18, below, were as follows:

Table 17 Individual t-tests for black & white participants comparing means of those without cross-race friends to those with cross-race friends for each attitudinal scale

	Mean Group1	Mean Group2	T-value	df	p	Valid N Group 1	Valid N Group 2	Std dev Group 1	Std dev Group 2	F ratio variances	P variances
Social distance: whites towards blacks	10.68966	12.1000	-0.960564	37	0.343007	29	10	4.000924	4.012481	1.005786	0.917111
Social distance: blacks towards whites	**11.67742**	**15.41667**	**-2.48410**	**41**	**0.017165**	**31**	**12**	**4.166430**	**5.071459**	**1.481623**	**0.380121**
Semantic differential: whites towards blacks	17.20690	15.10000	0.795144	37	0.431601	29	10	7.325978	6.903300	1.126206	0.904361
Semantic differential: blacks towards whites	15.62069	13.58333	0.975555	39	0.335298	29	12	5.473402	7.415688	1.835643	0.190231

Table 18 Combined t-tests for black & white participants comparing means of those without cross-race friends to those with cross-race friends

Social distance scores for blacks and whites	**11.200000**	**13.90909**	**-2.53443**	**80**	**0.013214**	**60**	**22**	**4.083036**	**4.819693**	**1.393388**	**0.318918**
Semantic diff scores for blacks and whites	16.49123	14.27273	1.329250	77	0.187691	57	22	6.489340	7.058813	1.183211	0.601442

Of the t-tests performed separately for black and white participants on each of the attitudinal scales, the only significant difference between the means of those with vs. those without cross-race friendships was found for black participants' social distance scores. Indeed these means were in fact the most different as discussed in the comparisons earlier. However, perhaps these findings are due to the small sample sizes for the means used.

Black and white participants were then pooled into one group, so as to increase the sample size and with this, the statistical rigour of the test. As can be seen in table 18 above, only the means of the social distance scores of those with vs. those without cross-race friends were significantly different ($p = \mathbf{0.013}$). This is in keeping with the individual t-tests discussed before. It seems that the inclusion of both whites and blacks into 1 group increased the strength of the significance of only the black group. However, the means of the semantic differential scores of those with and those without cross-race friends were not found to be significant. This finding was perhaps due to the higher range of scores found for those with cross-race friends discussed earlier, which may was only due to one participant, thus skewing the results.

Objective 8:

To explore whether these racial attitudes indirectly affect the seating patterns in the dining hall in terms of affecting the comfortability with other-race peers. Also, to investigate other factors that influence where students sit in the dining hall (which has been shown to be predominantly with same-race people).

In response to the first part of this objective, the following variables were examined, and correlated with the social distance and semantic differential scores of black and white participants: How anxious participants are working, living, or being taught by people of different backgrounds, the level of comfortability in sharing a table with those who speak a different language or who are of a different race, and whether they report sitting in the dining hall where they feel more comfortable. The results of these correlations are also presented in appendix I. With regards to the last variable, the segregation in the dining hall shown by the D and xPy* results, is suggestive that such comfortability, if reported, may then be predominantly among same-race individuals.

Working, living or being taught by people of different backgrounds

The relationship between intergroup bias and intergroup anxiety for black and white participants provided interesting findings. For white participants, although the social distance scores were somewhat correlated with either living, working with, or being taught by people of different backgrounds, these correlations being -0.16, -0.24, and -0.16, respectively, none of these were significant (see appendix I1). Similarly, the semantic differential scores were also not significantly correlated with participants' anxiety in the three conditions. The r-values in each of these cases, in the same order as reported before, were 0.05, 0.08 and 0.03, respectively (see appendix I3).

Conversely, however, the relationship between black participants' social distance scores with regards to whites and whether they experienced anxiety towards the prospect of living, working or being taught by people of different backgrounds to themselves, showed a marked trend (see appendix I2). In all three of these relationships, the results were found to be significant. The r-values for these relationships (once again in the order reported before) were -0.50 ($p = \mathbf{0.001}$), -0.44 ($p = \mathbf{0.004}$), and -0.46 ($p = \mathbf{0.002}$), respectively. These being point-biserial correlations, the direction of the relationships are dependent on the codes assigned to responses. Here, 'no' was given a code of 0, and 'yes' a code of 1. With this, results show that those who reported anxiety on one or more of these factors showed higher levels of intergroup prejudice. However, a similar trend was not evident for semantic differential scores for the black participants towards whites (see appendix I4).

How comfortable participants are sharing a table with different first language / other race students

With regards to the relationship between how comfortable students are sharing a table with those who speak a different language and their intergroup attitudes, no significant relationships were found, for both black and white participants, with either the social distance or semantic differential scores. The r-values for the correlations between white participants' social distance and semantic differential scores and their comfortability with other language speakers were 0.29 and –0.20, respectively. For black participants, the r-values were 0.22 and –0.28, respectively.

Contrastingly, all correlations between black and white participants' attitudinal scores and how comfortable they were sharing a table with students of a different race were found to be highly significant. Correlations with white participants' social distance and semantic

differential scores towards blacks resulted in r-values of 0.34 ($p = \mathbf{0.036}$) and 0.54 ($p<\mathbf{0.001}$), respectively. Similarly, correlations with black participants' social distance and semantic differential scores produced R's of 0.49 ($p = \mathbf{0.001}$) and –0.44 ($p < \mathbf{0.01}$), respectively. Responses to this variable, 'how comfortable students are sharing a table with students of a different race', were on a 5-point scale, where 'not at all comfortable' was coded as –2, and 'very comfortable' was coded as 2. Thus, all these significant relationships show that more favourable outgroup attitudes are associated with greater comfortability among different race peers.

'In the dining hall, I sit where I think I will feel more comfortable'

This variable was not highly correlated with the attitudinal scores. In fact, none of the correlations were significant (see appendix I).

Other factors influencing students' same-race patterns in the dining hall

To address this part of the objective, an attempt was made to establish a model of predictors for students' seating behaviour. Since such behaviour was typically segregated, the dependent variable for the model was "How many of the people that you regularly sit with now are of the same race as yourself?" This was a question taken from questionnaire two, which was completed in April 2003. It was thought that students would be able to report their seating patterns more accurately by then, owing to the consistency of the patterns of seating reflected in the results.

Correlations of the dependent variable (how many of the students that you sit with now are of the same race as yourself?) with a number of prospective independent variables were carried out. These are presented in appendix J, in tables J1 and J2, for white and black participants respectively. From these tables, those variables that had probability-values of 0.1 or less were initially included in the model. From the tables, for white participants, these included the likelihood of making friends of the same race, how comfortable participants were sharing a table with students of a different race, and whether students think that different race groups are treated equally at UCT or not. For black participants there was one overlap of the comfortability of students with regards to sharing a table with different-race peers. In addition, other variables that met in entrance criterion included how comfortable students were sharing a table with students who spoke a different language, as well as how much

contact participants have had with different race groups since arriving at UCT. However, all the above-mentioned variables were included in all of the analyses.

The aim of the regression analyses was to develop predictor models for both black and white students seating behaviours individually, as well as a combined model. As these models were all executed on an exploratory basis, forward stepwise regression analyses were carried out. The construction of each of these models will be discussed separately.

Forward stepwise model for black participants

Table 19 Summary of stepwise regression, DV: How many are of same race as yourself?

	Step +in/-out	Multiple R	Multiple R^2	R^2 change	F – to entr/rem	p-level	Variables incl
How comfortable are you sharing a table with students of a different race to you?	**1**	**0.315122**	**0.099302**	**0.099302**	**4.409996**	**0.042082**	**1**

Table 20 Regression Summary for Dependent Variable: How many are of same race as yourself?

R= .31512200 R^2= .09930188 Adjusted R^2= .07678442 F(1,40)=4.4100 p<.04208 Std.Error of estimate: .65654

	β	Std. Err of β	B	Std. Err of B	t	p-level	N
			2.145161	0.170510	12.58086	0.000000	
How comfortable are you sharing a table with students of a different race to you?	**-0.315122**	**0.150058**	**-0.241935**	**0.115207**	**-2.10000**	**0.042082**	**42**

The model above was the outcome when only those variables meeting the entrance criterion of $p \leq 0.1$ for black participants were included in the model. When all prospective variables, i.e. variables that met the entrance criterion for both blacks and whites, were included in the analysis, an almost identical model to the one in tables 19 and 20 above was achieved. The only difference in the model to the one above was that the p-value did not meet the significance level ($p > 0.05$), however by only a slight margin of entry. However, the model above was found to be significant ($p < \mathbf{0.05}$). There was only 1 step in the model, which included 'how comfortable students are sharing a table with students of a different race'. However, as is evident from the beta coefficient, this variables' contribution to the prediction of why students sit mainly with same-race peers is relatively high. Despite this high

contribution to the prediction, this variable only accounted for 9% of the explained variation of the dependent variable, however.

The fact that the beta coefficient is negative is in line with the expected direction of the result. The response for the dependent variable, 'How many of the people that you regularly sit with now are of the same race as yourself?' included the options: all, most, some, and none (see questionnaire 2, appendix C). These responses were coded as 3, 2, 1, and 0, respectively. As specified earlier, the codes for the independent variable, 'How comfortable are you sharing a table with students of a different race to you?' ranged from 2 to –2, where 2 represented very comfortable and –2, not at all comfortable. Thus, for this result, as the value of the dependent variable increased, the value of the independent decreased. In other words, the more same-race students sat with, the more uncomfortable respondents felt sharing a table with students of a different race.

Forward stepwise model for white participants

Table 21 Summary of stepwise regression, DV: How many are of same race as yourself?

	Step +in/-out	Multiple R	Multiple R^2	R^2 change	F – to entr/rem	p-level	Variables incl
scale 2: est likelih of friends of same race	**1**	**0.412359**	**0.170040**	**0.170040**	**7.375575**	**0.010092**	**1**
Generally, are diff race groups treated equally at UCT?	**2**	**0.513164**	**0.263337**	**0.093298**	**4.432713**	**0.042503**	**2**
how comfortable are you sharing a table with students of a different race to you?	3	0.567377	0.321917	0.058580	2.937267	0.095662	3

Table 22 Regression Summary for Dependent Variable: How many are of same race as yourself?

R= .56737738 R^2= .32191709 Adjusted R^2= .26208625 F(3,34)=5.3805 p<.00386 Std.Error of estimate: .4808

	β	Std. Err of β	B	Std. Err of B	t	p-level	N
Intercept			**1.662551**	**0.489256**	**3.39812**	**0.001745**	
scale 2: est likelih of friends of same race	**0.389470**	**0.141982**	**0.012556**	**0.004577**	**2.74309**	**0.009642**	**39**
Generally, are diff race groups treated equally at UCT?	**-0.263286**	**0.143353**	**-0.195249**	**0.106308**	**-1.83663**	**0.075021**	**38**
how comfortable are you sharing a table with students of a different race to you?	-0.246925	0.144077	-0.171489	0.100061	-1.71385	0.095662	39

Table 23 Redundancy of Independent Variables

R-square column contains R-square of respective variable with all other independent variables

Variables	Tolerance	R-square	Partial Cor	Semipart Cor
scale 2: est likelih of friends of same race	0.989320	0.010680	0.425684	0.387384
Generally, are diff race groups treated equally at UCT?	0.970491	0.029509	-0.300429	-0.259372
how comfortable are you sharing a table with students of a different race to you?	0.960764	0.039236	-0.281994	-0.242032

The model for the white participants was however more complex. Regardless of whether all 5 predictor variables were included, or whether only the three variables that met the entrance criterion for white participants ($p \leq 0.1$) were included, the outcome was the same. The model consisted of three variables, entered sequentially in the following order: the estimated likelihood of making friends of the same race (step 1: p = **0.01**), whether, generally, different race groups are treated equally at UCT (step 2: p = **0.04**), and how comfortable participants were sharing a table with students of a different race (step 3: p = 0.096) (see table 21). The beta coefficients for these variables were 0.389470, -0.263286, and -0.246925, respectively (see table 22). Once again, the directions of the relationships were as expected. As previously mentioned, the possible responses for the dependent variable, 'How many of the students you now sit with are of the same race as yourself?' were coded all=3; most=2; some=1; and none=0. With regards to the 'estimated likelihood of making friends of the same race', respondents had to estimate this likelihood on a scale of 0-100%. Thus the positive beta is as expected, the greater the likelihood that they will make same race friends, the more respondents sit with same-race students. With regards to whether respondents think different race groups are treated equally at the university, the negative beta coefficient is once again in line with the results. Codes for this independent variable included: always=3; most times=2; sometimes=1; and never=0. Thus, the more students think that different race groups are not treated equally at the university i.e. the lower the score for this predictor, the more same-race students respondents sit with (and the higher the score). Finally, the negative beta coefficient for 'How comfortable are you sharing a table with students of a different race to you?' was once again in the appropriate direction (see beta coefficient for the black model).

Thus, all three variables contributed reasonably to the prediction of the dependent variable and all three variables in position of entry showed good tolerance, these levels being 0.989320, 0.970491, and 0.960764 (see table 23). However, despite the individual

significance achieved by the first two entries, the regression summary showed that the step in of the third variable resulted in an increased significance of variable 1 ($p < \mathbf{0.01}$), but simultaneously decreased the probability-value for variable 2 to a non-significant level ($p = 0.075$). The R^2 for this model was 0.32.

The reduced significance of the model by the third variable to step in resulted in the investigation of a model without 'how comfortable students were sharing a table with students of a different race' (see appendix K). The inclusion of only the estimated likelihood of choosing same-race friends and whether students felt generally that students of different race groups were treated equally at UCT, resulted in a significant model. The regression summary showed both predictors to be significant. In addition, the beta coefficients for both variables increased making the contribution of both variables to the prediction of the dependent variable relatively greater. In addition, the tolerance for both variables increased to almost 1 for both variables. However, the only shortcoming of this 2-step model was the decrease in the explained variation ($R^2 = 0.26$). However, though the second model may seem the better model, the argument is for the first model as it includes an additional variable that is of particular importance in explaining the segregated patterns in the dining hall. In addition, although 'how comfortable students are sharing a table with students of a different race' was not found to be significant in the first model, it does approach significance.

In addition to these models, one may also refer back to objective 4 to the factors students rated as most important in determining the seating patterns in the dining hall. As one may recall, the outstanding factor there was friendship.

However, as one of our main focuses in this research was to understand the segregated patterns in the dining hall, an additional investigation was made in determining where all students ranked 'race' in terms of importance in organizing the seating patterns in the dining hall. If one looks at table 27, the frequencies at which 'race' was given scores of 1-10 is shown.

Table 27 Frequency table: rank for race (most imp characteristics determining seating patterns)

Rank	Count	Cumulative Count	Percent	Cumulative Percent
1	6	6	6.66667	6.6667
2	6	12	6.66667	13.3333
3	8	20	8.88889	22.2222
4	10	30	11.11111	33.3333
5	16	46	17.77778	51.1111
6	7	53	7.77778	58.8889
7	11	64	12.22222	71.1111
8	6	70	6.66667	77.7778
9	8	78	8.88889	86.6667
10	12	90	13.33333	100.0000
Missing	0	90	0.00000	100.0000

As can be seen, it the mode for this data set is at the ranked score 5. Similarly, the mean ranked score for the data set was 5.79. Thus, it seems that race does seem to influence where students sit to some extent. However, it is not the most important deciding or influential factor and neither is it the least important. It also important to mention here that in responding to how they decided where to sit for their first meal in the dining hall, that only 3 students reported racially-linked reasons. These responses included:

"I decided to sit at the table that contained most of my black African friends"

"I looked for people who seemed friendly; people I have seen at res and people who were black (not to say I'm racist; I felt more comfortable)"

"I headed for the table with the black faces"

Objective 9:

How much exposure have students had to intergroup contact? Are students' descriptions of interracial experiences positive or negative? Is there a relationship between intergroup contact and interracial attitudes?

Most participants (87 / 95) reported that they attended multiracial schools. Respondents who reported that they did not attend multiracial schools were all black students. However, one of these 8 students did however report that a proportion of his or her final class did consist of other-race students. In addition, although they reported attending multiracial schools, two black participants, and one Afrikaans-speaking white participant reported than there were no other-race students in their final class at school. When asked to approximate what proportion of their final classes consisted of other-race students, however, most of these responses proved to be problematic. An array of different forms of responses was given. Most often, these were the actual figures of other-race individuals, however, a relative total was not provided.

Participants were also asked to summarize previous intergroup experiences on a 7-point scale ranging from extremely positive (1), to extremely negative (7) (see table 28).

Table 28 Participants' descriptions of previous intergroup experiences

	Black	White	Coloured	Indian	Chinese	Total
1) extremely positive	9	13	1	3	0	26
2) positive	16	12	1	3	2	34
3) fairly positive	10	6	0	1	1	18
4) both positive/negative	2	4	0	0	1	7
5) fairly negative	1	2	0	0	0	3
6) negative	1	1	0	0	0	2
7) extremely negative	2	0	0	0	0	2
Total	41	38	2	7	4	92

Results in the table show that the most frequent response was the 'positive' category, followed by 'extremely positive', then 'fairly positive'. Thus, generally, the responses were that these experiences were positive. Only 7 of these responses fell in a 'negative' category.

An enquiry was also made into the amount and nature of participants' intergroup contact at university. Table 29 shows participants' reports of how much interracial contact they had experienced at the university. The question posed was as follows: *For many students, university is the first time they experience a multiracial and multicultural environment. How much contact have you had with people from other race groups at university since arriving here?*

Table 29 The amount of intergroup contact at university

	Black	White	Coloured	Indian	Chinese	Total
None at all	0	0	0	0	0	0
A little	4	1	0	0	0	5
Some	14	12	0	1	1	28
A great deal	25	26	2	6	3	62
Total	43	39	2	7	4	95

From the table it seems that most participants experienced 'a great deal' (62/95), or at least 'some' (28/95) interracial contact at university by the time of inquiry. No participant reported not having any intergroup contact with other race groups.

The most common descriptions of the experiences (Table 30) were that these were 'mostly positive' (54/94). A sizeable number of participants stated that these experiences were only 'somewhat positive' (30/95). No participant reported that their experiences were 'mostly negative', although 4 participants reported their experiences being 'somewhat negative' and 1 was unable to group their experiences within the categories provided and reported their experiences as 'mixed'.

Table 30 The nature of intergroup contact at university

	Black	White	Coloured	Indian	Chinese	Total
Mostly negative	0	0	0	0	0	0
Somewhat negative	1	2	0	0	1	4
Somewhat positive	19	8	1	0	2	30
Mostly positive	23	27	1	7	1	59
mixed	0	1	0	0	0	1

Total	43	38	2	7	4	94

The two latter variables discussed i.e. the amount and the nature of the contact experienced at university (see tables 29 and 30), were correlated with the attitudinal scores to establish whether a relationship between the two existed (see appendix I). The aim was to determine whether there was an association between the quantity and quality of previous contact and participants' intergroup prejudice. Results once again proved to be interesting, particularly for black participants. Whereas no significant relationships were found for white participants for both variables in relation to the both attitudinal scales ($p > 0.084$), the converse was the case for black participants. Significant **r-values** were found for correlations between both contact variables and the social distance and semantic differential scores. Correlations between the amount of contact black participants experienced by that point in time and the social distance and semantic differential scores produced r-values of 0.35 and –0.35, respectively. The probability-values for these results were $p = \mathbf{0.022}$ and $p = \mathbf{0.025}$, respectively. Codes for responses for 'how much interracial contact students had experienced at university by that time' included 'none at all' = 0, 'a little' = 1, 'some' = 2, and 'a great deal' = 3. Thus, the positive and negative r-values for the relationship between this contact variable and the social distance and semantic differential scores, respectively, show that more interracial contact is associated with more favourable attitudes. In similar suit, associations between the descriptions of these experiences and the social distance and semantic differential scores produced results of 0.38 and –0.40, respectively. Probability-values for these results were $p = \mathbf{0.011}$ and $p = \mathbf{0.010}$, respectively. Codes for students' general descriptions of their interracial experiences included: 'mostly negative' = -2, 'somewhat negative' = -1, 'somewhat positive' = 1, and 'mostly positive' = 2. Again the positive and negative associations between this contact variable and the social distance and semantic differential scores of participants, reflect these interracial experiences were more positive for those with more favourable intergroup attitudes.

However, when examining the scatterplot for the description of black participants' interracial experiences and their social distance scores towards whites (see figure 3), it is evident that there is an obvious outlier that could have affected the results, and with this, contributed to the significance of this result. This outlier was due to the fact that one participant responded

that his/her experience was somewhat negative. Importantly, the exclusion of this outlier (see figure 4) did in fact reduce the r-value to 0.30, which was not found to be significant (p = 0.056).

Fig. 3. General descriptions of interracial experiences vs.social distance sco of blacks towards whites

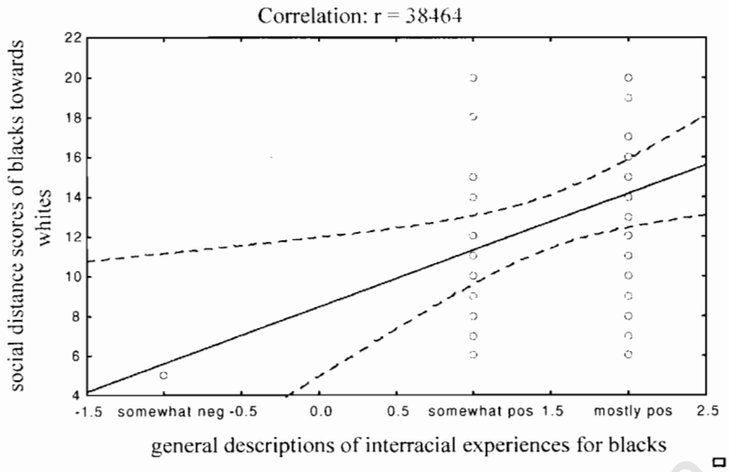
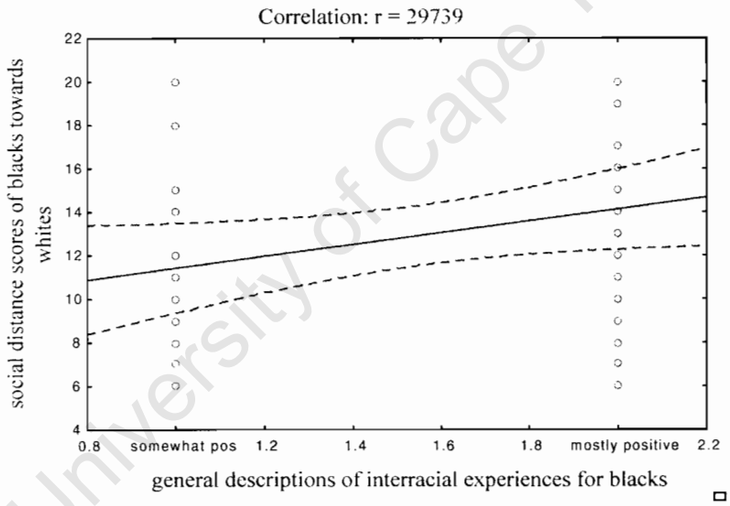


Fig. 4. General descriptions of interracial experiences for blacks vs. soc distance scores for blacks towards whites



Objective 10:

To investigate students' awareness of, & opinions / ideas about what is happening in the dining hall as well as with regards to the overall segregation at UCT.

Finally, in order to gain better insight and understanding of the seating behaviour in the dining hall, it was necessary to obtain qualitative data of participants' own ideas or opinions of the patterns observed in the dining hall. Three important questions were posed close to the end of questionnaire 3, which were in direct relation to the dining hall and the patterns observed there. These included: (1) W*e have noticed that many students often sit with the same people in the dining hall. Why do you think this happens?* (2) *Why do you think students are reluctant to sit with different people at different mealtimes?* And (3) *as you may have gathered, part of this research is focused on the seating patterns in the dining hall. What do you think this research will establish about the patterns of seating*? Each of these open-ended questions will be discussed separately.

In response to the first question, most participants (43) reported that students often sit with the same people in the dining hall because of the comfortability it provides. Some labeled these behaviors as remaining within "comfort zones". In addition to this, many participants (36) also reported that students sit with friends on a regular basis.

These two categories of 'comfortability' and 'friends' were most often linked, such that there was an association between sitting with friends and being comfortable and conversely, not sitting with friends with being uncomfortable. In addition, many participants reported wanting to sit with people they could talk to or socialize with (21). These people were most often friends. Some examples of participants' responses were as follows:

"Usually these people are friends – party together and hang out together so they sit together at meals too. We even arrange the time at which we're going to have our meals"

"People feel comfortable with friends they know. They can be themselves, talk freely, share jokes easily, etc".

"You establish a sort of comfort zone – its just easy to sit with your friends"

"sitting with strangers can be uncomfortable at times..."

"Friends sit together, more comfortable, more to talk about and less fear of rejection (safety)"

In this last quotation, another important response category reported by respondents is evident: that of intergroup anxiety (15). Participants expressed fear of rejection or of not being accepted, as well as their own insecurities involved in the process of trying to join another group. Participants' responses included some of the following:

"own insecurities"; "probably for security reasons..."; "Probable fear of rejection / feeling out of place..."; "Because if you sit with those that they don't know you, they will make jokes about you" (case 63 –check).

Other factors included that students sit with people they know or are familiar with (12), that the consistency in the seating patterns was something that occurred naturally or out of habit (9), or that plainly, it was too much effort to do otherwise (6). Furthermore, 5 respondents attributed the consistency in seating patterns to the fact that people sit with those who are alike or similar. In addition, only 3 participants attributed the patterns to racial reasons or prejudice.

With regards to why students are reluctant to sit with different students at mealtimes, similar categories of responses emerged. However, in this case, the most frequent category of response (29) was related to intergroup anxiety. Participants attributed this reluctance to a fear of rejection or exclusion, to fears of 'feeling out of place' or feeling 'excluded' or 'like an intruder'. Once again there was also a theme of comfortability as the second most frequent category coded (22), either, as before, relating to the comfortability of sitting with the same people or the discomfiture in changing this pattern. Some examples of responses were as follows:

"Some people don't want to come out of their comfort zones and would rather sit with people they know"

"It's nice living in your own little comfort zone! Also now that you've made friends, you don't need to try as hard to acquire new ones"

Students also reported the inability or difficulty to participate in the conversations at 'other' tables as a reason for upholding the patterns of seating. A variety of reasons were given for this 'inability'. Some of these included that the addition of a new member at a table resulted

in conversation being strained. Others reported that it was effortful to participate in conversations with students one did not regularly sit with. Still others reported that the topic of conversation at 'new' tables was often on issues or events that they had no knowledge of or had not participated in. Furthermore, students also reported that there were language barriers and that the people at different tables were interested in different things.

Respondents also reported shyness / awkwardness (13) with regards to joining a new table, followed by reasons that they preferred to sit with those whom they knew or were use to (10) and that they were reluctant because it was effortful to change their regular seating patterns of to try to make new friends (9). Some also reported that students prefer to sit with friends (9). Finally, other sundry categories included that students showed this reluctance out of habit (3) and that students sit with those that they have something in common with (2). 2 participants reported that this reluctance as due to racial reasons, 1 of which reported that "First, colour is what they check". Finally, 1 participant also reported that students might not be use to difference.

Finally, students' ideas of what this research would establish about the seating patterns proved quite surprising. Here the largest coded category was basically that "Racial groups stick together" (30). This was indeed the statement made by almost 1/3 of the participants. Some of these responses included the following:

"There is a definite division of races. Usually white will sit with white, black with black, Indian with Indian, etc (note usually, not always)"

"That people often sit with their friends, people they know or with people of the same colour. This is just something that just happens unawares"

"I would guess that results would show that the seating is 80% of the time fixed & that races generally sit together"

"There are not as many mixed race seating groups as would be suggested by our claims that we are comfortable with people who are different from us"

That people tend to sit with the same people, usually of the same race. Most whites sit in the center. The blacks sit at the left side and the coloured and Indians at the right side"

"Students automatically sit in racial groups at the same tables. Students only sit with other racial groups during "crises moments" e.g. when their friends aren't there"

The second highest coded response was the acknowledgement that students sit with the same people or group in the dining hall (22). Thirdly, participants also acknowledge that students sit with friends (21).

"People sit in the same friendship group and generally tend to occupy the same tables or area in the dining hall. It is as though there is a habit or norm of where & with whom to sit"

Furthermore, some participants also report that students sit at the same table in the dining hall (10) , others, that students who do the same course or who are of the same university year or age sit together (7), and that students sit with the same group from orientation (7).

Although given as the most important reason why students sit with the same people in the dining hall, here only 6 participants reported that students sit with those whom they are most comfortable with, as the most probable findings of this research.

Other categories included that students sit with those they know or are familiar with (6), that students of the same gender sit together (6) and that there are definite, observable patterns in the dining hall (4). Furthermore, 3 participants responded that people who are alike sit together and 2 participants that people who share the same language sit together.

It is also important to note that it is only here, for the first time that race is so strongly alluded to as an influential factor in the dining hall. Even though it could be argued that only a third of participants reported the influence of race on the patterns in the

dining hall, it is the first time that there is such an overt acknowledgement of the racial division there.

In addition, all of the categories of responses reported in this variable seem to cover the information collected throughout the objectives.

These were essentially the main findings.

Discussion

In 1998, Duckitt and Mphuthing reported that there was "no change in interethnic attitudes from before to after the elections" (p. 828). This was four years after the country became a democracy. In 2001, three years later, Christopher reported that despite some movement towards integration, that there were still high levels of segregation in the various provinces in South Africa. This was seven years after the democratic institution of government. The importance of reiterating these findings cited in the literature review is their relevance to the understanding of the results. Both Duckitt and Mputhing's (1998) and Christopher's (2001) reports are suggestive that the country's progression towards being an integrated society is a slow process. Similarly, our investigation of the interracial relations in a micro contact setting also reflected this process as slow moving.

If one were presented with the proportions of the various racial groups that make up the body of students that have their meals in the dining hall, with the backdrop of the new democratic country, this would surely present the kind of situation hoped for in South Africa. However, closer examination of the degree of interracial contact in this potentially 'integrated' setting showed less interracial mixing than one would probably expect. The results showed obvious patterns of informal segregation, which were evident in the manner in which students organized their seating. Further investigation showed that this own-race preference extended to students' friendships, which were, for the most part, also racially segregated. Among a number of factors investigated for this in-group bias, a major influence on these behaviours seems to involve certain emotive factors, which are different for black and white students. In addition, students' intergroup prejudices, possibly stemming from these emotive factors also seem to be responsible to a certain, but lesser degree. The impression from the results is that the processes in the dining hall among black and white students replicate issues in society at large. According to Foster and Finchilescu (1986) "In the wake of a lengthy history of institutionalized racism, it is not surprising that even the most progressive exceptions to the general pattern …fail to escape entirely, the negative effects of the rigidly categorized and unequal social structure" (p. 130). In other words, the socio-structural positions, and with this, identities of blacks and whites in society, may be translated into even the simplest of intergroup

relations. Macro racial issues may be imparted to even the simplest of micro intergroup settings such as a residence dining hall.

Generally, there were 2 cardinal focuses for the study. Both were established in consequence to the finding of clear patterns of informal segregation in two residence dining halls in part one of the study. The first of these was to establish how early and how quickly the patterns were formed in the dining hall, in other words, whether they were formed early in the year, or whether they were gradually formed during the course of the year. Either of these findings would have interesting consequences or implications. The second of these would be to understand or gain insight into the patterns observed. Taking into account the complexity of these issues, especially with regards to understanding the patterns, a number of simple, ancillary objectives were devised. The objectives were aimed at providing a sequential investigation, and subsequent perception and understanding into the nature of these issues.

A more succinct recapitulation and discussion of the findings of these objectives and aims, as presented in the results, now follows.

Patterns in the dining hall

It is useful to commence this discussion with the findings for objectives one and two, as it was the segregated seating patterns in the dining hall that served as the initiative for the study. In response to the first 2 objectives, there were marked segregated patterns of seating in the dining hall that were evident from the beginning of the year. This was shown by the high levels of segregation displayed by the D and xPy* results for February (see appendix F). This finding was supported by the respondents' self-reports of whom they sat with in the dining hall. Respondents reported that most of the people that they sat with at the first table in the dining hall were of the same race. As mentioned, one would generally think that in a dynamic space such as a residence dining hall, in which blacks and whites are relatively equal in number, that this situation would facilitate higher levels of integration. However, the results show that for the most part, this does not seem to be the case between black and white students in the dining hall.

Specific patterns

Furthermore, it seems from the responses that students do not sit in the same place in the dining hall everyday, but that they do in fact sit with a similar or the same cohort on a regular basis. Thus, students may be shifting around, however, they shift with the same group or some of their peers of whom most are of the same race.

However, we need to bear in mind that students were not always able to select a table. The choice, if any, was often dependent on availability of space. The fact that this was a relatively small dining hall with a capacity of only approximately 200 students and bearing in mind that there were 475 students was indeed a factor that needed to be considered in the interpretation of the results. Thus, during the observations it was noted that the dining hall was often full, resulting in a long queue of students in the food collection line. Thus, at times students might not have had much choice about where to sit. However, students still seemed to manage to segregate themselves. One might expect that with limited space available, that students would be forced to sit where there was space, irrespective of with whom this was. With this, the picture of integration might have been somewhat greater. However, the segregated patterns were consistent, in spite of this.

From the results, it seems that one of the methods of upholding this segregation was through the partitioning of space in the dining hall into various racial spaces. Results show that there were not only tables, but certain areas in the dining hall that were, for the most part, 'black' or 'white' areas. Through the regular patterns of students' seating, the dining hall seems to be divided into certain areas where different racial groups 'usually' sit. As mentioned in the findings for objective ten, one student openly acknowledged and even specified these divisions in the dining hall. Thus, if students are not sitting on the same places in the dining hall everyday, evidence of these racial areas suggest that they are still remaining within certain territories. If there are certain tables in the dining hall that are continually occupied by certain racial groups, bearing in mind that most students claim not to sit at the same table in the dining hall everyday, then this may imply that those tables or those areas of the dining hall containing those tables are marked areas or territories for particular racial groups. It seems that certain divisions of the dining hall become 'black' or 'white' spaces as certain racial groups lay claim to certain areas in the dining hall and set up racial

boundaries by their consistent occupation of certain areas. This is not hard to believe since the patterns in the dining hall are so immediate and so apparent at the beginning of the year and seems to set the pattern for the rest of the year.

This finding lends support for Dixon's (2001) argument for the greater acknowledgement of space as a tool for upholding segregation. Students' spatial organization of themselves in the dining hall aids in the maintenance of segregation. Students seem to erect racial boundaries, through the use of space, which are exclusive to other racial groups. However, these areas are not exclusively 'white' or 'black', but there is a greater presence of whites or blacks in the different spaces to dominate the space. Therefore these boundaries would be 'soft', owing to the fact that some interracial mixing does occur (Sibley, 1988, 1995, as cited in Dixon, 2001). However, these boundaries are sufficient to define the various racial spaces. It is these boundaries that make the possibility of integration in the dining hall even more difficult. As shown in part one of the study, transcending table boundaries already poses a major challenge. Consequently, area boundaries create an even greater and an additional impediment to interracial mixing between black and white students.

Following these results, the question we were faced with, as in part one of the study, was what were the factors or processes underlying these patterns, and what were the structures maintaining it. Contrary to part one of the study, which was only observational, there were a number of other avenues of investigation at our disposal in part two. An a priori conjecture was that the patterns in the dining hall were patterns of friendship. It was acceptable that if students were, or became acquainted with the people that they sat with, that they would continue to sit with these people. It would be unrealistic to expect anyone to come into the dining hall everyday and to sit with a new group of people on a daily basis. The critical question was how those groups, most likely of friends, were initially formed, and why they consisted, for the most part, of same-race students.

Friendship and the patterns in the dining hall

Not surprisingly, results were in line with the conjecture of friendship. There was definitely a relationship between friendship and the contact patterns observed. Most respondents reported sitting with friends in the dining hall. However, bearing in mind

that the seating patterns in the dining hall were highly segregated, by implication, these patterns were segregated patterns of friendship.

Despite this marked tendency, only three students reported that the choice of the first table sat at was related to racial reasons. This might be interpreted in two ways. On the one hand, students may be justifying the segregation by attributing their seating choices to friendship, even though these friendships are markedly segregated. On the other hand, however, students may truly experience other factors as more important than race, in determining where to sit. This was reflected in students' responses of the most important determinants of their seating patterns, in which case race was on average, ranked as number five in a list of ten.

Among the three students that reported racial reasons, however, one student reported: "I looked for people who seemed friendly; people I have seen at res and people who were black (not to say that I'm racist; I felt more comfortable)". As we will see as the discussion progresses, this early statement by one of the respondents was quite significant and actually offered a hint at a theme that was to be extremely important in this study i.e. the theme of comfortability among same-race peers. We will return to this issue shortly.

Returning to the issue of friendship segregation, this preference for same-race peers was confirmed by the investigation of students' three closest friendships. In future, this will be referred to as the '3-friends' question. The outcome of this investigation also portrayed a strong preference among the participants for same-race peers as their friends. With regards to friend one, only 17 of the 95 respondents reported cross-race peers as their friends. Reports for friends two, and three were similar with only 18/95 and 18/93 of respondents' friends being cross-race.

The '3-friends' method of friendship inquiry, has however been criticized in literature (Jackman & Crane, 1986, p. 464). The reason for this criticism is that it excludes a range of other friends, thus narrowing the perception and view of participants' friendship networks. An alternative manner of investigation would have been to ask participants to name all of their friends and to provide information about each of these friends. This is referred to as the network approach (Smith, 2002). With this approach,

a member of a person's friendship circle is placed relative to other friends and the number thereof and this presents a more informative view of the strength of the friendship with that member. However, if asked the '3-friends' question, if a white student named a black student as one of those friends, one might assume a general tendency for the white person to establish cross-race friendships. However, the black friend mentioned might be the only black friend among 20 other white friends and the white participant may purposefully make mention of the black 'friend' to appear in a socially desirable way. Conversely, if a white student were not to mention a black friend among the 3 friends, one might assume an antagonistic attitude towards interracial friendships. However, it might just be that the white student has black friends, but that since only three were required, a black friend was not included.

Our motivation for using the '3-friends' question was that we did not want participants creating a false impression of their tendency to establish friendships interracially. Converse to the argument against the 3-friends network investigation, by allowing students the freedom to name almost everyone that they regarded as friend or acquaintance, and bearing in mind the difficulty in defining 'friend' or distinguishing between it and its sublevels of acquaintance or colleague, a black student could mention a white student that they greeted on daily basis or that they have interacted with only once, as a friend. In other words, students would have the freedom to create a picture of their friendship network that is slightly or grossly tainted, in order to create an impression that is socially desirable.

It is acknowledged that it is a disadvantage or flaw of the study that we do not know the range of social networks available and therefore have no comparative margin for the results. However, the aim was merely to explore whether the three closest friends named were of the same, or of a different race. If participants had only to describe their three closest friends, who would these friends be racially? The approach employed though, was not only from a friendship perspective, but from a contact one too. It had more to do with the level of intergroup contact in friendships.

From the results, it does not seem as though participants attempted to create a socially desirable impression in response to these questions on friendship. As stipulated by Smith (2002), it was important that the content preceding the 3-friends question in

questionnaire two was not focused on race at all. As previously mentioned, if these preceding questions are race-focused, it is likely to result in respondents attempting to appear non-prejudiced (Smith, 2002). All of these questions were focused on students' general adjustment to university. In addition, race was made to seem an insignificant focus among the questions for each friend.

In spite of the limitations, it is still felt that the results of the '3-friends' question provided some insight into the extent of students' interracial friendships. It is believed that the three friends that participants provided were generally indicative of their level of interracial mixing at friendship level. The strong credence in these findings rests upon the additional confirmatory data supporting these results. The data provided by the 3-friends investigation was not exclusively or solely relied upon. This data was imbedded in a host of other supportive evidence for friendship segregation.

Other corroborative evidence included the students that respondents knew upon arrival and those they reported as potential friends. In both of these categories, only a few peers were proposed to be of a different race. The predominant categories of responses to both inquiries were that 'some' or 'none' of these peers were of a different race. Interestingly, the only inconsistency was that most respondents reported having friends of a different race outside of the university (N=77). The most likely conjecture that could be postulated for this finding was that in a new environment, especially as in this case for students at a university for the first time, that the experience would most likely be anxiety provoking. Following from the earlier association made by one respondent between being with members of one's own race and comfortability, perhaps the same process could be underway here. Perhaps students find greater comfort among own-race peers in that these situations create less anxiety? This idea might be labelled speculative; however, this conjecture draws on the results of the regression models in which comfortability with regards to sharing a table with different race students was found to be a predictor in both black and white students seating patterns with same-race peers. However, I will return to a discussion of these models.

Although the '3-friends' question was investigated independently to the seating patterns in the dining hall, a link between the two was established later in

questionnaire two. Many participants reported sitting with all (N=57), or at least some of the three friends reported. This result was consistent with the finding that the patterns in the dining hall were segregated patterns of friendship.

Considering the proportions of black and white students that have their meals in the dining hall (see table 1), it is important to consider the effects proposed by the opportunity hypothesis (Hallinan & Smith, 1985). It might be argued by some that the slightly greater number of white students may affect the dynamics of mixing. In one sense, in accordance with the hypothesis, the greater number of white students could increase the number of cross-race friendships made by black participants, owing to the greater availability of white students (Hallinan & Smith, 1985). With this, there would be more same-race friendships made by white students as there were less blacks available, and more whites available to befriend whites. On the other hand, the alternative hypothesis would propose that because of the previous dominance of whites in society, that the greater number of white students in the dining hall, however slight, could perhaps result in black students being intimidated by them and, as a result, remaining within the sanction of their own-race peers (Hallinan & Teixeira, 1987a). In addition, this dominance, in light of present day issues, could also result in black students resenting whites and with this, also avoiding intergroup contact with them.

However, as mentioned, the difference in proportion was not that significant as to result in major opportunity effects. In addition, opportunity effects rest upon the assumption that students are making friends in the dining hall. However, as the results showed, of the friendships made, relatively few were made in the dining hall in comparison to the friendships made in their residences. One might wonder why this is the case. Why are students' friendships, which are predominantly same-race, made for the most part in their residence? One of two possibilities for this result might include that same-race students engage in similar activities at their residence, which can lead to friendship, in accordance with the literature on similarity (Werner & Parmelee, 1979). The other might include that same-race students have rooms that are in close proximity, which allows regular contact and subsequent friendship. If the latter possibility is the case, then this has important implications for the racial organization of the residences.

Now returning to the main question facing us at this stage, this was why students' friendships in the dining hall were segregated to this extent. At this point, one of two ideas seemed most plausible. The first of these was intergroup prejudice. Perhaps erroneously, this is often the first conclusion we tend draw about segregation. The second explanation, either in addition to, or independently of, the first, was similarity. The inclusion of friendship into the equation automatically called for the consideration of similarity, one of its main determinants. As discussed in the literature review, one of the bases of friendship, pervasive in the friendship literature is that people choose those whom they perceive as most similar to themselves as friends (Aboud & Mendelson, 1996). This similarity is reportedly most often across demographic factors such as race (Hallinan, 1982) and sex (Clark & Ayers, 1992). This was in line with the results, where most of the respondents and their friends were similar with regards to factors such as race, sex and language.

As discussed, similarity in characteristics such as race can often result in an automatic assumption or the perception of similarity on a range of other factors such as common knowledge of customs and culture, belief systems or attitudes. However, as social identity theorists suggest, the perception of similarity or dissimilarity in the out-group is a weaker predictor of favourable intergroup relations than salient race-category membership (Brown, 1996). We did not assess the strength of respondents' racial identity. However, based on the high levels of segregation in the dining hall, and on the segregation in students' friendships, one might conjecture that this racial group membership is likely to be salient. In addition, the similarity-attraction hypothesis falls within the sphere of interpersonal relations. Based on the high levels of same-race friendship, it is possible that black and white students in the dining hall may be operating for the most part on an intergroup, rather than an interpersonal level with each other, perhaps emphasizing the strong salience of their racial group identities?

However, cross-race interpersonal relations were not absent. Despite the significant amount of same-race friendships, there were however, some cross-race friendships reported. In fact, almost 19% of friendships were cross-race. A number of reasons could be cited for why these findings are important. However, I will mention two. Firstly, it reflects that however strong the segregated patterns between the students are, that these patterns are not at least that resolute to allow no interracial mixing.

However minimally, such results show that the state of separatism between different race students is not that absolute anymore that it prevents any form of interracial mixing. Secondly, despite being only a few in comparison to same-race friendships, these cross-race relationships again reflect this progression, however slow, towards integration.

Another important finding was that there were no real differences between same- and cross-race friendships on the twelve behavioural characteristics that were included for the 3-friends question in questionnaire two. This finding was also important in the sense that it lessens the 'otherness' of cross-race friendships even if only with regards to these twelve characteristics. The fact that both same- and cross-race friendships were characterised similarly presents a kind of normality in the bounds of the study to different-race friendships. However, there was still the question of difference between those participants that did or did not engage in cross-race friendships. One of the most obvious conclusions one would draw would be that the prejudice levels between these students would be different. Indeed they were. For white participants, those with cross-race friends were found to have a higher mean of 12.1 than those without cross-race friends for whom the mean score was 10.69 (here a score of 20 represents a relatively non-prejudiced score). Similarly, for black participants, those with cross-race friends had a mean score of 15.42, compared to those without cross-race friends for whom the mean score was 11.68. With regards to the semantic differential scores, the differences between the means of those with, and those without cross-race friends also differed in the expected direction. However, these differences were mostly not found to be significant, which may indicate that too much is made of this issue. On the other hand, this result may however, have been a consequence of the small sample sizes in the individual groups of white and black participants presented. In coalescence, however, blacks' and whites' social distance scores of those with cross-race friendships were however found to be significantly different from those without.

Attitudes and friendship

Results showed evidence of some prejudice that could possibly explain the results, more so among those that did not have cross-race friends than among those that did. However, as mentioned, this was only significant for the combined black and white group's social distance scores. These levels of prejudice could then, in part, account

for the high levels of segregation in the dining hall and among friends. However, to account for such high levels of segregation, as reflected in the results, the reliance only on intergroup prejudice as an explanation would warrant much higher levels of prejudice than displayed in the results.

In addition, this lack of conclusive findings of significant differences on both attitudinal measures among those with or without cross-race friends also point to an alternative explanation. It seems that other underlying processes are of greater influence. These processes began to slowly emerge within the rest of the analyses of the data.

The relationship between the attitudinal measures and whether students had friends outside the university of a different race, whether they had potential friends of a different race, and their estimated likelihood of making either same- or cross-race friends, differed among black and white participants. For whites, the only significant relationship was between the semantic differential scores and whether they had friends outside the university of a different race ($r = -0.40$; $p = 0.012$). Those who responded that they did had more favourable intergroup attitudes. Again, as conjectured, this finding could be a function of students' feelings of ease in settings outside the university such as the neighborhoods in which they live or the schools which they previously attended. In addition, these settings of ease could have provided easier access to regular interracial contact. There were a greater number of significant relationships for blacks. Their social distance scores were significantly correlated with the number of cross-race peers who were potential friends ($r = 0.33$; $p = 0.033$), as well as with the estimated likelihood of making cross-race friends ($r = 0.36$; $p = 0.017$). In both cases, more favourable attitudes were associated with an a greater number of cross-race friends. In addition, the semantic differential scores were also significantly correlated with the number of potential friends who were of a different race ($r = -0.39$; $p = 0.014$). Again, more positive affect towards the outgroup was associated with a greater potential of cross-race friends. Thus, for black participants, it seems that the number of cross-race peers they think they will most likely befriend, and the likelihood thereof seems to increase with lower levels of prejudice towards, and more positive regard for, the outgroup (in this case, whites).

This makes sense. However the findings reported in objective eight added greater interpretation to these results.

Comfortability

The results in objective 8 (see p. 94) proved to be of great value for understanding the processes that might be involved in the seating behaviors exhibited by students. Results showed highly significant correlations for black participants between the social distance scores and anxiety surrounding living ($r = -0.50$; $p = 0.001$) or working with ($r = -0.44$; $p = 0.004$), or being taught by people of different backgrounds ($r = -0.46$; $p = 0.002$). These were all dichotomous variables. In all of these relationships, anxiety was associated with higher prejudice levels.

In addition, there were significant correlations for both blacks and whites between how comfortable they were sitting at a table with members of other racial groups and both their attitudinal measures ($p < 0.037$). Results show that for both blacks and whites, this level of comfortability seemed to increase with more favourable intergroup attitudes. Significant correlations were also established between the level of comfortability in sharing a table with other-race peers and how many people they reported sitting with who were of the same race as themselves, for both blacks and whites ($p < 0.043$). These relationships were also in the expected direction. The more same-race peers students sat with, the more uncomfortable they were sharing a table with different race peers.

Thus, it seems that in summation thus far, both black and white participants' attitudinal measures and how many same-race peers they report sitting with are associated with their level of comfortability with other-race peers. If one were to conjecture a causal sequence model, one might postulate that prejudice levels would determine the level of comfortability with outgroup peers. This would be in line with the intergroup anxiety literature (Stephan & Stephan, 1985). This comfortability could then determine the regularity with which students sit in same-race groups. This was in fact a finding in the regression analyses. Although this particular model was not tested sequentially, an attempt was made to develop and test other models for black and white students with 'How many of the people you sit with are of the same race as yourself' as the dependent variable.

Results showed an emphasis on comfortability, especially for black respondents. This finding is consistent with the finding of anxiety among black participants. Hence, the only predictor in the 'black' model was how comfortable students were sharing a table with different race peers. Together with the finding of the association between high anxiety levels and the attitudinal measures, these findings point to intergroup anxiety for black participants as the most important explanatory factor for their seating behaviors.

Although comfortability was also found to be important for predicting white students' segregated seating patterns, there were other factors, which seemed to be of greater importance. These included the estimated likelihood of making same-race friends and whether students thought that different racial groups were treated equally at the university. These were both interesting findings. With regards to the former, the fact that the high reporting of sitting with peers of the same race could be predicted by whites' estimation of making same-race friends is of great significance. Bearing in mind that the seating patterns in the dining hall are patterns of friendship, this finding may be indirectly interpreted as whites being able to predict their seating patterns as same-race. In addition to the partially higher prejudice scores for whites, the second strongest predictor in the 'white' model may shed light on this finding. The fact that whites' feelings about whether different race groups are treated equally at the university or not, predicted their same-race seating behaviours proposes a different set of attitudes that may be in operation for whites that may not have been clearly elicited or revealed by the attitudinal measures. Again, we will return to a discussion on this predictor.

The only consistent predictor in both of the models, that is both white and black models individually, was the level of comfortability students experienced when sharing a table with students of a different race and clearly, there were different contributions to this comfortability for black and white students.

It seems that for blacks an important factor is intergroup anxiety. As suggested by the literature, intergroup anxiety can hinder intergroup relations in a number of ways to the extent of avoidance of intergroup contact (Stephan & Stephan, 1985). Thus, if this is the case, then blacks might stick to same race groups as this lessens or eases such

anxiety. Furthermore, the literature also suggests that the amount and nature of previous contact, as well as previous cognitions of the outgroup are important determinants of intergroup anxiety (Stephan & Stephan, 1985). Thus, the anxiety that seems to be exhibited by blacks may be due to past issues of lack of exposure or prejudice and their lasting effects. For whites, it seems that other dynamics are operating. They show higher prejudice levels, and the most highly correlated variable (in the predictor model of the same-race patterns) is their question of whether racial groups are treated equally. It seems like the two dominant groups in the sample seem to reflect society's bigger issues.

Retracting from the dining hall to society in general, it is obvious from the literature that society has not become automatically integrated following the institution of a democracy. However, taking into account the history of relations between different race groups, it is naïve to expect this (Allport, 1954). For blacks, it is highly likely that the past effects of marginalisation and oppression still affect the present day intergroup relations of some of them. These effects most likely center around intergroup anxiety as the antecedents of previous cognitions about the outgroup (i.e. whites) and the amount and nature of previous contact (Stephan & Stephan, 1985) are pertinent to their experience and their history. These antecedents would both be appropriate to the South African situation. It would not be surprising for blacks in society to still harbour feelings of hostility towards whites because of the past oppression enforced by the white government. This would also account for the nature of previous contact, which would most likely be described negatively. In addition, due to the past marginalisation and ostracism of blacks, the issue of a lack of intergroup exposure would certainly be key in their experience of intergroup anxiety. Furthermore, as there are still high levels of segregation in the country (Christopher, 2001), it is highly likely that even now, there are a number of people whose backgrounds still include a lack of exposure. Thus, in the present day, as blacks attempt to transcend their past positions, it seems that they are in what can be described as some kind of unbalanced convalescent state in terms of their social identity, where some have hastily adopted and adapted to the new societal position while others have struggled with this transition, with abandoning previously enforced roles they are accustomed to. In addition, it is also possible that blacks may still

harbour feelings of resentment towards whites due to the history of race relations between blacks and whites in the country.

For whites, it is possible that they are caught in some kind of battle against the attenuation of a position and power to which they were accustomed in the past, which has now, in a sense been delegated to all. For some, this might seem like a form of invasion, especially when considering the efforts in society in general at meeting status quotas and in efforts of black empowerment. This focus on uplifting blacks in society may have repercussions of indignation on the attitudes of whites, as they may feel neglected or cheated. Whites may thus feel invaded by blacks and may naturally exhibit negative attitudes and behaviours towards them. Even more so, a direct response to a feeling of invasion may be to erect boundaries against such invasion, racial boundaries, and in effect strengthen racial group membership. According to social identity theorists, one could interpret this behaviour for whites as a defense against a threat to their social identity (Brown, 1996). Whites' past social identity has mainly been one of dominance and superiority. This social-structural position has now been altered, in efforts to establish equality in society. However, as also suggested by social identity theorists, there exists a similarity threshold among groups especially with regards to status. To a certain degree, similarity might encourage favourable attitudes. However, beyond a certain limit, groups may set up defenses as their identity or societal stance is threatened (Brown, 1996). This may be the case for whites as more and more efforts are aimed at establishing equality for blacks in terms of group status.

In summary then, it seems that blacks find comfort more with blacks most likely because it is associated with less anxiety. For whites, they seem to seek support from their same-race peers. Their unison seems more of a statement against what they may feel is an invasion of their status and position in society.

Following from these broader societal issues, a number of authors have put forward the idea that the broader issues or conflicts in macro social settings are often translated into even the simplest of micro situations. (Foster and Finchilescu, 1986). Cohen (1972) labelled it 'interracial interaction disability', that "the relations between the races will be biased in the same direction as in the outer society" (p. 9). Following

this, it is not outrageous to attempt to understand the patterns in the dining hall in terms of the broader societal issues. In accordance with the above-mentioned authors, it is possible that the broader issues in society can be filtered into an intergroup setting like the dining hall and into the simplest of actions like sharing a table. In other words, it is naïve to try to attempt to interpret the issues in the dining hall as separate to the issues at large in society, as the intergroup relations in this setting cannot be completely detached from general societal intergroup relations. The state of race relations in the country generally, is inevitably 'permeated' into all contexts of intergroup relations (Foster & Finchilescu, 1986). One does not operate independently of the other.

Exposure

Now the reasons for whites' seating behaviour and their attitudes have already been touched upon. However, with regards to blacks and their intergroup anxiety that they seem to exhibit, an important area of enquiry is intergroup contact. As previously mentioned, the literature suggests that intergroup anxiety is mainly dependent on two factors: the level of intergroup contact, and the extent of prejudicial attitudes (Stephan & Stephan, 1985). In other words, the more contact or the less intergroup bias, the less anxiety. As we have already discussed the respondents' intergroup attitudes, we now turn to exposure.

The results reported for both black and white students reflected that there was a great deal (62/95), or at least some (28/95) intergroup exposure at university. In addition, most participants attended multiracial schools. Albeit it that only seven (besides the one discrepant finding) respondents reported that they did not attend multiracial schools, it is however important to note that all seven students were black. Three other participants reported that their final classes at school consisted only of same-race peers. Again, two of these participants were black. This lack of interracial exposure at school for almost 21% of the black respondent sample could most likely have had a significant effect on the results. In keeping with previous findings and with the literature, this lack of exposure could possibly have contributed to the intergroup anxiety experienced by black participants.

In addition, the amount and nature of previous contact was significantly related only to blacks' attitudes. Again, these relationships were in the expected direction. The more intergroup contact blacks had experienced, the more favourable their intergroup attitudes. In addition, more positive interracial experiences were associated with less prejudiced attitudinal scores. Conversely, the less intergroup contact and the more negative interracial experiences were associated with high levels of prejudice. As per the literature (Stephan & Stephan, 1985) these are tenets for intergroup anxiety. This would more likely be the case for those who had little or no intergroup contact, for example in school.

However, even if some of the other participants did attend desegregated schools, this does not automatically imply integrated, interracial contact or exposure in its true sense. It has been ten years since the institution of the democracy in the country. With this, because most students have most likely been schooled in multiracial schools, or so it is assumed, it is also automatically assumed that interracial exposure is guaranteed. With this, exposure (contact) in this sense should not account for the segregation. However, as literature shows, desegregation and integration are separate concepts (Pettigrew, 1967, as cited in Schofield & Sagar, 1977) and thus imply different things. Thus, even if their background exposure may have been to desegregated schools, this does not mean that they were necessarily integrated. The state of our country after ten years of democracy reflects this with even micro contact settings such as a residence dining hall with sufficient potential for interracial mixing, exhibiting such high levels of racial segregation. Our results show that there may be a significant number of different racial groups in a particular setting in which they come into contact with each other regularly. However, this does not imply automatic interracial 'mixing'.

Students' explanations and opinions

Finally, an interesting conclusion to the investigation was to examine how the participants themselves explained the patterns in the dining hall.

Students reported that the main reason that people sit with the same people in the dining hall, who, as the data shows, happen to be predominantly of the same race, is because of the comfortability it offers. Many alluded to the idea of a "comfort zone"

in which students feel safer to remain. However, we know from the data that students sit predominantly with same-race students. Thus, it seems that these "comfort zones" are provided within same-race groups where it seems the students experience a kind of "group security". Other responses provided by participants included that these groups are groups of friends, which is was an early result of the study, and that they are people whom students can talk to or socialize with. This may be a result of the similarity in language among students and their friends reported in the results. Students also reported that these are peer groups in which they feel accepted. This may also be a marker for intergroup anxiety.

Some students even expressed that the patterns in the dining hall were formed out of habit and others reported that it was too effortful to do otherwise. Similar trends in responses were reported for why students are reluctant to change these seating patterns. However, in light of the earlier discussion of the possible underlying issues in the dining hall, some of these responses now seem as mere superficial excuses for the underlying processes. However, this may not be a fair claim and is dependent on whether students are truly aware or whether they completely understand their feelings about why they prefer being with their own-race peers. Most reasons students gave were legitimate, however, and most possibilities the students provided for the findings of the research were quite plausible. However, it seemed again that students were eluding the obvious that only a third of the participants openly admitted – that there was racial segregation in the dining hall. This purposeful evading of the obvious is paradoxical as this deliberateness possibly portrays students' awareness of the patterns. In addition, perhaps it also suggests an unwillingness to admit what is truly happening around them? It is understandable that students would not want to, in a sense, portray themselves as 'prejudiced', by this acknowledgement of awareness. On the other hand, however, perhaps race is truly not the main issue here for the students, even though the factors that are at issue may be circumscribed by race. As shown in the discussion, the separateness of the black and white students in the dining hall is upheld by a number of structures, which cannot simply be labeled prejudice.

The second highest reported response for the patterns in the dining hall was that students sit with friends. This was perfectly plausible and it merely served to reinforce a result that was already known. Thus, together, a high proportion of students do

report what our opening findings were, that the patterns in the dining hall were racially segregated and that these patterns were segregated patterns of friendship. However, as reflected in the rest of the findings and discussion thereof, this served merely as a backdrop to a range of other important findings that shed some insight into the understanding of the segregated seating behaviors.

In spite of the depth of the investigation and the improvements made to part one of the study, however, this part of the research was still limited in a number of ways.

Limitations

One of the issues in the study that might be deemed a limitation of the study was that the indices used in the analyses of the seating patterns only allowed the inclusion of two racial groups. This was also a limitation of part one of the study. The two dominant groups, i.e. the black and white participants, were thus chosen for the analyses. However, by including the Coloured, Indian, and Chinese participants, especially the Indian participants (N=80), the results may have shown more interracial mixing, perhaps not between blacks and whites, but among the other-race peers and black and white students. Thus, where observations showed no white students at a table of only black students, there might have been other-race students, besides blacks, at the table. However, besides the fact that there were too few Coloured and Chinese participants in the sample to be included in the analyses, it is also a recognized fact that in South Africa's race relations, "black-white relationships constitutes the central problem" (Foster and Finchilescu, 1986, p. 16).

Furthermore, as in any survey-type research, there were a number of limitations associated with the use of the questionnaires. One of these problems was that of incomplete questionnaires. With this, the analyses involving certain variables in which responses were missing proved problematic. The fact that students were paid confounded this problem. Even though the payment might have aided in the in achieving the size of the end sample (N=95), students may just have completed the questionnaires hastily and without consideration, merely for the sake of being paid. In addition, the questionnaires were quite long and often included a number of open-ended questions. Therefore, participants may have become bored and once again, completed the questionnaires with little or no regard. Another prominent problem was

that of possible false reporting, especially with regards to subjective or personal views about sensitive or controversial issues such as those related to race. Depending on the issue, in this case, race, answers could either have been inflated or exaggerated, or understated.

Thus, students can often present a picture of 'mixing', but may not truly be interacting interracially. For example, students may report scant, infrequent interracial associations with cross-race peers so that they appear to be regular interracial interactions. Therefore the responses they put forward should be relative to something that represents a possible totality. Thus, this totality could be relative to, for example, how much contact there could be. We did not have a measure of totality for students' reports on friendship. An example could be the alternatives proposed to the '3-friends' network question. Though it did not suit our cause in this study, the network approach does offer this kind of relative totality, as it provides a greater knowledge of the full ranges of students' social networks.

Another limitation of the study was that more questions regarding students' past interracial exposure, for example, with regards to their backgrounds, should have been included. A clearer picture of participants' previous intergroup exposure could have been portrayed if other questions regarding their living and home environment were inquired about.

However, in spite of these limitations, the effects of these limitations did not impugn on the understanding of the seating patterns in the dining hall, albeit for only black and white students.

Apart from these limitations, however, a number of ideas for future research also emerged from the study.

Future research

A future plan for the study would include an attempt to trace individual students in the dining hall. It would have been interesting in this study to have identified and traced the actual seating patterns of respondents in the dining hall. However, because of the confidentiality assured to respondents, no direct link could be established between

them and their actual seating behaviours. A more direct association between the two would have been interesting.

Furthermore, it would also be useful to conduct the observational study with the inclusion of all the racial groups in the dining hall. It would be interesting to investigate how strong the patterns of interracial mixing among other racial groups compare to those of black and white students. However, a larger sample of minority groups would be necessary to obtain any conclusive findings. It would also be interesting to establish whether minority 'spaces' also exist in the dining hall and how these spaces develop in relation to the more dominant group 'spaces'. In addition, it would also be fascinating to assess whether stronger alliances perhaps exist between either black or white and other race groups, than between black and white students.

Furthermore, a follow-up investigation would be useful in order to observe whether the area divisions found in the results were consistent every year. Do these 'spaces' remain predominantly black or white 'spaces' through the students that remain every year?

For the purpose of gaining more insight into the students' seating behaviours, it would be valuable to conduct in depth interviews with students to explore in greater depth, the issues found to be important in the study. A greater qualitative analysis is required on the issues discussed. With this, we need to inquire more into methods that may aid students in overcoming these feelings of anxiety and other inhibitory feelings. What we require are greater efforts at attempting to understand the racial patterns, greater efforts of enquiry.

Finally, the fact that participants stated, for the most part, ingroup members as their closest friends and that many stated that they had met these friends in residence, has important implications for the organization of students in residents, racially. In addition, it has implications for the great influence academic structures such as universities have in promoting interracial contact and subsequent friendships. With this, a number of questions could be posed: How much contact do different race students experience in residences? How are room allocations organised with regards to race? Do participants participate in decisions about where they want to be placed in

residences? Is the racial structure of students within residences conducive for interracial mixing? What interventions at the organisational level have the university put in place to aid interracial relations? These and a number of other questions along these lines present interesting avenues for future investigation. The role of promoting and facilitating intergroup contact in residences might prove an interesting area of research. In fact, the general organisational structures with regards to interracial contact facilitation would no doubt have much to contribute to students' intergroup exposure at university. This raises the important issue of greater intervention at the organisational level of the university. Other studies have also highlighted the necessity of intervention at this level: "Empirical studies show that Black and White students in desegregated classrooms remain socially segregated unless school authorities create an environment that deemphasizes racial differences and supports and promotes cross-race interactions" (Schofield, 1982, in Hallinan & Texiera, 1987, p. 1358). In their study, Khmelkov & Hallinan (1999) "…show how specific organizational and social characteristics of schools activate the mechanisms that govern race relations and influence students' interracial relationships" (p. 628).

Conclusion

Part one of the study was initiated in order to study contact naturally i.e. in an everyday setting. It was aimed at emphasizing the importance of shifting contact study to real-life settings. In this part of the study, i.e. part 2, the fascinating findings and insight offered by this naturalistic study emphasizes this point again. This study is a small indication of the many issues in ordinary, everyday settings that need to be researched. Contact researchers need to focus on society in its real-life, everyday state and to address the issues within it.

Broadly, it seems that though we live within a democratic society, that the traces of previous moulds of races still interfere in the present day, through those who have lived in this time of separation and through those to whom such moulds have been passed on. However, with no formal structure promoting such separate socializations of races, such moulds no longer have a solid foundation. With this, we may be hopeful that eventually these moulds will become worn, as the pressures on society to remove past wounds and move on are strong. It is however evident, that this process will require much time in its evolution.

It seems that "mere contact is not enough" (Foster & Finchilescu, 1986, p. 119). What we require is actual intervention through the combined efforts of all structures that have some control over the integration of racial groups. Mere desegregation is not sufficient. The results of the study show that it does not automatically imply integration (Pettigrew, 1967, as cited in Schofield & Sagar, 1977).

The study has also taught us an important lesson that our emphasis on race and racism as the only explanation for segregation among different racial groups is quite naïve. The results show that for the most part, the segregation observed in the dining hall is not simply explainable in terms of prejudice alone, but possibly through a range of emotive factors that need to be considered such as the black participants' intense intergroup anxiety or white participants' feelings of insecurity or neglect.

As the study shows, the emotions and attitudes portrayed by black and white students in the dining hall are largely representative of society's greater interracial issues. It seems that even micro intergroup settings do not escape the effects of the interracial complexities so evident in our macro social state of affairs (Foster & Finchilescu, 1986).

However, although one of the outstanding features in the results was the segregation among the students, a feature that should also have been emphasized was that there was integration, irrespective of the relative degree thereof. What these results seem to show among the students in the dining hall, is that even though the progression towards integration is slow-moving, however, it is not absent. These results are again representative of the broader issues in society with which this dissertation began. What they show is that it is unrealistic to expect the effects of almost half a century of separatist policies for races to be miraculously undone in ten years. This erroneous expectation held by many, is similar to what was labelled the 'natural progression assumption' (Shaw, 1973), which Allport (1954) rightly labelled a naïve trend of thought. Transition is in progress, but it is slow. What we require is greater investigation into methods that may aid and encourage this process. It is believed that such insight may truly be gained through continuous investigation and research. However, taking into account the degree of insight this small study has provided into the seating patterns in the dining hall, it is of the greatest benefit if such inquiry is

conducted in other ordinary, everyday settings, where such real-life issues seem to prevail. It is only with this continued insight that we may slowly begin to understand, and with this, aid in improving society's intergroup relations.

References

Aboud, F. E. & Mendelson, M. J. (1996). Determinants of friendship selection and quality: Developmental perspectives. In W. M. Bukowski, A. F. Newcomb, and W. W. Hartup (Eds.). *The company they keep: Friendship in childhood and adolescence* (pp. 87-112). Cambridge, UK: Cambridge University Press.

Aboud, F. E., Mendelson, M. J., & Purdy, K. T. (2003). Cross-race peer relations and Friendship quality. *International Journal of Behavioural Development, 27*, 165-173.

Allport, G. W. (1954). *The nature of prejudice*. Reading, Massachusetts: Addison-Wesley.

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71,* 319-341

Amir, Y. (1976). The role of intergroup contact in change or prejudice and ethnic relations. In P. A. Katz (Ed.), *Towards the elimination of prejudice* (pp. 245-308). Elmsford, N.Y.: Pergamon Press.

Blair, I. V., Park, B., & Bachelor, J. (2003). Understanding intergroup anxiety: Are some people more anxious than others? *Group Processes and Intergroup Relations, 6*, 151-169

Brewer, M. B., & Miller, N. (1984). Beyond the contact hypothesis: Theoretical perspectives on desegregation. In N, Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 156-186). New York: Academic Press.

Britt, T. W., Boniecki, K. A., Vescio, T. K., Biernat, M., & Brown, L. M. (1996). Intergroup anxiety: A person x situation approach. *Personality and Social Psychology Bulletin, 22*, 1177-1188

Brophy, I. N. (1945). The luxury of anti-Negro prejudice. *Public Opinion Quarterly, 9*, 456-466.

Brown, R. (1996). Tajfel's contribution to the reduction of intergroup conflict. In P. W. Robinson (Ed.), Social groups and identities. Developing a legacy of Henri Tajfel. Oxford: Blackwell.

Brown, R., Maras, P., Masser, B., Vivian, J., Hewstone, M. (2001). Life on the ocean wave: Testing some intergroup hypotheses in a naturalistic setting. *Group Processes and Intergroup Relations, 4*, 81-97.

Bukowski, W. M., Newcomb, A. F., & Hartup, W. W. (1996). Friendship and its significance in childhood and adolescence: Introduction and comment. In W. M. Bukowski, A. F. Newcomb, and W.W. Hartup (Eds.). *The company they keep: Friendship in childhood and adolescence* (pp.1-15). Cambridge, UK: Cambridge University Press.

Buttny, R. (1999). Discursive constructions of racial boundaries and self-segregation on campus. *Journal of Language and Social Psychology, 18*, 247-268.

Byrne, D., & Griffitt, W. (1966). A developmental investigation of the law of attraction. *Journal of Personality and Social Psychology, 4*, 699-702.

Byrne, D., & McGraw, C. (1964). Interpersonal attraction towards Negroes. *Human Relations, 17*, 201-213.

Byrne, D., & Wong, T. J. (1962). Racial prejudice, interpersonal attraction, and assumed dissimilarity of attitudes. *Journal of Abnormal and Social Psychology, 65*, 246-253.

Campbell, D. T., Kruskal, W. H., & Wallace, W. P. (1966). Seating aggregation as an index of attitude. *Sociometry, 29*, 1-15.

Christopher, A. J. (1990). Apartheid and urban segregation levels in South Africa. *Urban Studies, 27*, 421-440.

Christopher, A. J. (2001). Urban segregation in post-apartheid South Africa. *Urban Studies, 38*, 449-466.

Clark, M. L. & Ayers, M. (1992). Friendship similarity during early adolescence: Gender and racial patterns. *The Journal of Psychology, 126*, 393-405.

Cohen, E. (1972). Interracial interaction disability. *Human Relations, 25*, 9-24.

Cohen, E. G., & Roper, S. S. (1972). Modification of interracial disability: An application of status characteristic theory. *American Sociological Review, 37*, 643-657.

Cook, S. W. (1962). The systematic analysis of socially significant events: A strategy for social research. *Journal of Social Issues, 18*, 66-84.

Cook, S. W. (1964). Desegregation: A psychological analysis. In V. E. Vinacke, W. R. Warner & G. M. Meredith (Eds.), *Dimensions of social psychology* (pp. 503-514). Fairlawn, NJ: Scott Foresman.

Davis, M., Seibert, R., & Breed, W. (1966). Interracial seating patterns on New Orleans public transit. *Social Problems, 13*, 298-306.

Deutsch, M., & Collins, M. (1951). *Interracial housing: A psychological evaluation of a social experiment*. Minneapolis: University Minnesota Press.

Deutsch, M., & Collins, M. E. (1961). The effect of public policy in housing projects upon interracial attitudes. In E. E. Maccoby, T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology* (pp. 612-623). London: Methuen & Co Ltd.

Dijker, A. J. M. (1987). Emotional reactions to ethnic minorities. *European Journal of Social Psychology, 17*, 305-325

Djiker, A. J., Koomen, W., Van den Heuvel, H., & Frijda, N. H. (1996). Perceived antecedents of emotional reactions in inter-ethnic relations. *British Journal of Social Psychology, 35*, 313-329

Dixon, J. (2001). Contact and boundaries: 'Locating' the social psychology of intergroup relations. *Theory and Psychology, 11*, 587-608.

Dixon, J. & Durrheim, K. (2003). Contact and the ecology of racial division: Some varieties of informal segregation. *British Journal of Social Psychology, 36*, 361-381.

Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Processes and Intergroup Relations, 6*, 5-21.

Du Bois, D. L., & Hirsch, B. J. (1990). School and neighbourhood friendship patterns of blacks and whites in early adolescence. *Child development, 61*, 524-536.

Duck, S. W. (1973). Similarity and perceived similarity of personal constructs as influences on friendship choice. *British Journal of Social and Clinical Psychology, 12*, 1-6

Duckitt, J., & Mphuthing, T. (1998). Political power and race relations in South Africa: African attitudes before and after the transition. *Political Psychology, 19*, 809-832.

Eder, D., & Hallinan, M. T. (1978). Sex differences in children's friendships. *American Sociological Review, 43,* 237-250

Ellison, C. G., & Powers, D.A. (1994). The contact hypothesis and racial attitudes among black Americans. *Social Science Quarterly, 75*, 385-400.

Emerson, M. O., Kimbro, R. T., & Yancey, G. (2002). Contact theory extended: The effects of prior racial contact on current social ties. *Social Science Quarterly, 83*, 745-761.

Epstein, J. L. (1986). Friendship selection: Developmental and environmental influences. In E. C. Mueller & C. R. Cooper (Eds.), *Process and outcome in peer relationships* (pp. 129-160). Orlando: Academic Press, Inc.

Finkelstein, N. W., & Haskins, R. (1983). Kindergarten children prefer same-colour peers. *Child Development, 54*, 502-508.

Foster, D. (1991). A note on attitude measurement. In D. Foster and J. Louw-Potgieter (Eds.), Social psychology in South Africa (pp. 487-505). Isando: Lexicon Publishers (Proprietary Limited).

Foster, D., & Finchilescu, F. (1986). Contact in a 'non-contact' society: The case of South Africa. In M. Hewstone and R. Brown (Eds.), Contact and conflict in intergroup encounters. New York: Blackwell-Economist.

Gaertner, S. L., Rust, M. C., Dovidio, J. F., Bachman, B. A., & Anastasio, B. A. (1994). The contact hypothesis: The role of a common ingroup identity. *Small Group Research, 25,* 224-249

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*, 161-178.

Graham, J. A., Cohen, R., Zbikowski, S. M., Secrist, M. E. (1998). A longitudinal investigation of race and sex as factors in children's classroom friendship choices. *Child Study Journal, 28*, 245-267.

Greenland, K., & Brown, R. (1999). Categorisation and intergroup anxiety in contact between British and Japanese nationals. *European Journal of Social Psychology, 29*, 503-521

Greenland, K., & Brown, R. (2000). Categorisation and intergroup anxiety in contact. In D. Capozza and R. Brown (Eds.), *Social identity processes* (pp. 167-183). Sage publications: London

Hallinan, M. T. (1982). Classroom racial composition and children's friendships. *Social Forces, 61*, 56-72.

Hallinan, M. T. (1986). School organisation and interracial friendships. IN V. J. Derlega and B.A. Winstead (Eds.), Friendship and social interaction (pp.). New York: Springer-Verlag.

Hallinan, M. T., & Smith, S. S. (1984). Students' same-race and cross-race friendships. In E. J. Lawler (Ed.), *Advances in group processes* (Vol.1) (pp. 229-255). Greenwich, Connecticut: JAI Press Inc.

Hallinan, M. T., & Smith, S. S. (1985). The effects of classroom racial composition on students' interracial friendliness. *Social Psychology Quarterly, 48*, 3-16.

Hallinan, M. T., & Teixeira, R. A. (1987a). Opportunities and constraints: Black-white differences in the formation of interracial friendships. *Child Development, 58,* 1358-1371.

Hallinan, M. T., & Teixeira, R. A. (1987b). Students' interracial friendships: Individual characteristics, structural effects, and racial differences. *American Journal of Education, 95*, 563-583.

Hallinan, M. T., & Williams, R. A. (1987). The stability of students' interracial friendships. *American Sociological Review, 52,* 653-664.

Hallinan, M. T., & Williams, R. A. (1989). Interracial friendship choices in secondary schools. *American Sociological Review, 54*, 67-78.

Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin, 121*, 355-370.

Hays, R. B. (1988). Friendship. In S. Duck (Ed.). *Handbook of personal relationships: Theory, research, and interventions.* (pp.391-408) Chichester: John Wiley & Sons.

Henderson-King, E. (1994). Minimizing intergroup contact: An urban field study. *Journal of Applied Social Psychology, 24*, 1428-1432.

Hewstone, M., & Brown, R. J. (1986). Contact is not enough: An intergroup perspective on the "contact hypothesis". In M. Hewstone & R. J. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 1- 44). Oxford: Basil Blackwell.

Hewstone, M., Cairns, E., Voci, A., Paolini, S., McLernon, F., Crisp, R. J., & Niens, U. (in press). Intergroup contact in a divided society: Challenging segregation in Northern Ireland. To appear in D. Abrams, J. M. Marques, & M. A. Hogg (Eds.), *The social psychology of inclusion and exclusion*. Philadelphia, PA: Psychology Press.

Howell, D. C. (1997). Statistical Methods for Psychology (4th Ed). Belmont, CA: Duxbury Press.

Howes, C., & Wu, F. (1990). Peer interactions and friendships in an ethnically diverse school setting. *Child Development, 61*, 537-541.

Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived out-group variability, and out-group attitude: An intergrative model. *Personality and Social Psychology Bulletin, 19*, 700-710

Jackman, M. R., & Crane, M. (1986). "Some of my best friends are black…": Interracial friendships and whites' racial attitudes. Public Opinion Quarterly, 50, 459-486.

Jahoda, M., & West, P. S. (1951). Race relations in public housing. *Journal of Social Issues, 7*, 132-139.

Johnson, S., & Johnson, D. W. (1972). The effects of other's actions, attitude similarity, and race on attraction towards others. *Human Relations, 25*, 121-130.

Kandel, D. B. (1978). Similarity in real-life adolescent friendship pairs. *Journal of Personality and Social Psychology, 36*, 306-312.

Khmelkov, V. T., & Hallinan, M. T. (1999). Organisational effects on race relations in schools. *Journal of Social Issues, 55,* 627-645.

Levin, S., Van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes and Intergroup Relations, 6*, 76-92.

Massey, D. S., & Denton, N. A. (1988). The dimensions of residential segregation. *Social Forces, 67*, 281-315.

McLaughlin-Volpe, T., Aron, A., Wright, S. C., Reis, H. T. (2000). Intergroup social interactions and intergroup prejudice: Quantity versus quality. In T. McLaughlin-Volpe (Chair), Personalized Intergroup Contact and Intergroup Prejudice. Society for Personality and Social Psychology Conference, Nashville, TN.

Minard, R. D. (1952). Race relations in the Pocahontas coal field. *Journal of Social Issues, 8*, 29-44.

Mynhardt, J., & Du Toit, A. (1991). Contact and change. In D. Foster & J. Louw-Potgieter (Eds.), *Social psychology in South Africa*. (pp. 271-314). Johannesburg, South Africa: Lexicon.

Nahemow, L. & Lawton, M. P. (1975). Similarity and propinquity in friendship formation. *Journal of Personality and Social Psychology, 32*, 205-213.

Newcomb, T. M. (1956). The predictor of interpersonal attraction. *American Psychologist, 11*, 575-586.

Newcomb, (1961). The acquaintance process. Holt, Rhinehart, and Wilson: New York.

Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of direct and indirect cross-group friendships on judgements of Catholics and Protestants in Northern Ireland: The mediating role of an anxiety-reduction mechanism. *Personality and Social Psychology Bulletin, 30*, 770-786.

Paolini, S., Hewstone, M., Voci, A., Harwood, J., & Cairns, E. (in press). Intergroup contact and the promotion of intergroup harmony: The influence of intergroup emotions. To appear in: R. J. Brown & D. Capozza (Ed.), *Social identities: Motivational, emotional, cultural differences*. Hove, England: Psychology Press.

Patchen, M. (1982). *Black-white contact in schools: Its social and academic effects*. West Lafayette, Indiana: Purdue University Press.

Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin, 23*, 173-185.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49,* 65-85.

Pettigrew, T. F., & Tropp, L. R. (2000). Does intergroup contact reduce prejudice? Recent meta-analytic findings. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 93-114). Mahwah, N. J.: Erlbaum.

Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin, 29*, 790-801

Polimeni, A., Hardie, E., & Buzwell, S. (2002). Friendship closeness inventory: Development and psychometric evaluation. *Psychological Reports, 91*, 142-152.

Powers, D. A., & Ellison, C. G. (1995). Interracial contact and black racial attitudes: The contact hypothesis and selectivity bias. *Social Forces, 74*, 205-226.

Riordan, C. (1978). Equal-status interracial contact: A review and revision of the concept. *International Journal of Intercultural Relations, 2*, 161-185.

Riordan, C., & Ruggiero, J. (1980). Producing equal-status interracial interaction: A replication. *Social Psychology Quarterly, 43*, 131-136.

Robinson, J. W., & Preston, J. D. (1976). Equal-status contact and modification of racial prejudice: A re-examination of the contact hypothesis. *Social Forces, 54*, 911-924.

Rogers, M., Hennigan, K., Bowman, C., & Miller, N. (1984). Intergroup acceptance in classroom and playground settings. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation*. New York: Academic Press.

Sagar, H. A., Schofield, J. W., & Snyder, H. N. (1983). Race and gender barriers: Preadolescent peer behaviour in academic classrooms. *Child Development, 54*, 1032-1040.

Schofield, J. W. (1986). Black-white contact in desegregated schools. In M. Hewstone & R. J. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 79-92). Oxford: Basil Blackwell.

Schofield, J. W. (1995). Promoting positive intergroup relations in school settings. In W. D. Hawley, & A. W. Jackson (Eds.). *Toward a common destiny: Improving race and ethnic relations in America*. California: Jossey-Bass Inc.

Schofield, J. W., & Francis, W. D. (1982). An observational study of peer interactions in racially mixed "accelerated" classrooms. *Journal of Educational Psychology, 74*, 722-732.

Schofield, J. W., & Sagar, H. A. (1977). Peer interaction patterns in an integrated middle school. *Sociometry, 40*, 130-138.

Schrieff, L. E. (2002). Eating across the colour line: An observational study of black and white contact in the dining halls. Unpublished honours dissertation, University of Cape Town, South Africa.

Shaw, M.E. (1973). Changes in sociometric choices following forced integration of an elementary school. *Journal of Social Issues, 29*, 143-157.

Sigelman, L., Bledsoe, T., Welch, S., & Combs, M. W. (1996). Making contact? Black-white social interaction in an urban setting. *The American Journal of Sociology*, *101*, 1306-1332.

Singleton, L. C., & Asher, S. R. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. *Journal of Educational Psychology, 69*, 330-336.

Singleton, L. C., & Asher, S. R. (1979). Racial integration and children's peer preferences: An investigation of developmental and cohort differences. *Child Development, 50*, 936-941.

Smith, T. W. (2002). Measuring inter-racial friendships. Social Science Research, 31, 576-593.

Stephan, W. G. (1978). School desegregation: An evaluation of predictions made in *Brown v. Board of Education*. *Psychological Bulletin, 85*, 217-238.

Stephan, W. G. (1987). The contact hypothesis in intergroup relations. In C. Hendrick (Ed.). *Group processes and intergroup relations* (pp. 13-40). Newbury Park: Sage Publications.

Stephan, C. W., & Stephan, W. G. (1992). Reducing intercultural anxiety through intercultural contact. *International Journal of Intercultural Relations, 16*, 89-106

Stephan, W. G., Diaz-Loving, R., & Duran, A. (2000). Intergrated threat theory and intercultural attitudes: Mexico and the United States. *Journal of Cross-Cultural Psychology, 31*, 240-249

Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues, 41*, 157-175

Stephan, W. G., & Stephan, C. W. (1989). Antecedents of intergroup anxiety in Asian-Americans and Hispanic-Americans. *International Journal of Intercultural Relations, 13*, 203-219.

Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.

Tropp, L. R. (2003). The psychological impact of prejudice: Implications for intergroup contact. *Group Processes and Intergroup Relations, 6*, 131-149

Underwood, S. (2002). Processes of segregation in a dynamic social space. Unpublished honours dissertation, University of Cape Town, South Africa.

Watson, G. (1947). *Action for unity.* New York: Harper.

Werner, C., & Parmelee, P. (1979). Similarity of activity preferences among friends: Those who play together stay together. *Social Psychology Quarterly, 42*, 62-66.

Williams, R. M. Jr. (1947). *The reduction of intergroup tensions.* New York: Social Science Research Council.

Williamson, R. C. (1955). Race relations in South Africa. *Sociology and Social Research, 39,* 165-170.

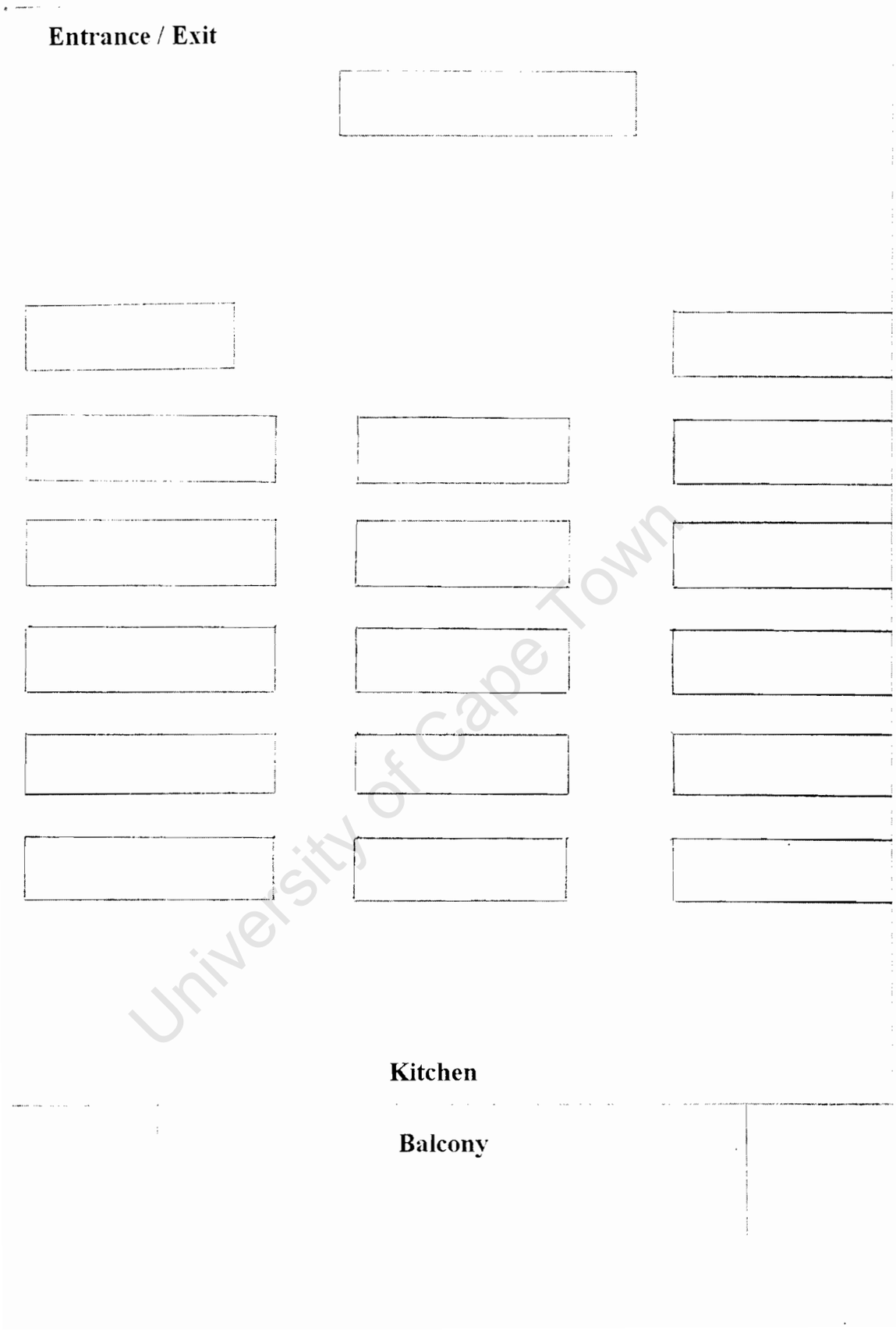
Wilner, D. M., Walkley, R. P., & Cook, S. W. (1952). Residential proximity and intergroup relations in public housing projects. *Journal of Social Issues, 8*, 45-69.

Winstead, B. A., & Derlega, V. J. (1986). Friendship and social interaction: An introduction. In V. J. Derlega and B. A. Winstead (Eds.), Friendship and social interaction. Springer-Verlag: New York.

Wright, S. C., Aaron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of*

Personality and Social Psychology, 73, 73-90.

Appendix A



Appendix B

Dear freshers

My name is Leigh Schrieff. I am currently enrolled in an MA in psychological research at UCT. The research I am currently undertaking focuses on first-years and their orientation at university, their adjustment to university and the development of friendships during their first year at university.

All that is expected of you is to complete three questionnaires, this being the first. The second and third will follow in March and April respectively. On completion of the third questionnaire we will pay you R30 for participating. There will also be a lucky draw for a mystery prize at the end.

Accompanying this questionnaire is a code name that is to be used for each of the questionnaires. These code names guarantee your anonymity and confidentiality. An independent person to this research, Ines, was responsible for the issuing of these code names. At the end of the third questionnaire you will be required to return these code names in order to receive payment. Ines will once again be handling this process.

Finally, there is a possibility that interviews will be conducted at a later stage of the research. These interviewees will be randomly selected and approached. The participation in these interviews will however be voluntary.

Feel free to contact Ines or myself if you have any further questions. Our details are listed below.

Ines: ines@humanities.uct.ac.za / Tel: (021) 650 4606

Leigh: schlei002@mail.uct.ac.za

Adjustment to University Questionnaire

Code name: _____

Age: _____ Sex: M ☐ F ☐

Race: Black African ☐ White ☐

Coloured ☐ Indian ☐

Other – please specify _____

Nationality: _____ Country of residence: _____

Home language: _____

(This demographic information is required to ensure that a representative sample is obtained.)

What school did you attend (for your final exams)? _____

In which country and town is this school? _____

Was this school a mixed sex school? Y ☐ N ☐

Approximately what proportion of your final class consisted of the other sex (i.e. not your sex)? _____

Was this school multiracial? Y ☐ N ☐

Approximately what proportion of your final class consisted of other race students (i.e. not your own race)? _____

Approximately what proportion of your final class consisted of other students whose first language was different from your own?

_____

Approximately what proportion of your final class consisted of students whose religion was different from your own?

_____

Do you have any friends outside of UCT who speak a different first language to your own?

Y ☐ N ☐

Do you have any friends outside UCT who are of the opposite gender?

Y ☐ N ☐

Do you have any friends outside UCT who are of a different race to you?

Y ☐ N ☐

Do you have any friends outside UCT who are of a different religion to you?

Y ☐ N ☐

In your own experiences, you probably have had contact with people from another race group. If you had to summarise these experiences, please rate the extent to which these were positive or negative. Indicate your general feeling by circling 1 number on the scale (1= extremely positive; 7= extremely negative).

1 (Positive) 2 3 4 5 6 7 (Negative)

Describe at least one of these experiences.

_____

_____

_____

_____

When you first arrived at UCT, did you know any other students here?

Y ☐ N ☐

If so, how many?

_____

How do you know them?

Same highschool ☐ Family members ☐

Same neighbourhood ☐ Friends (general) ☐

How many of these students have you been friends with?

All of them ☐ Some of them ☐

Most of them ☐ None of them ☐

How many of these students are at res with you?

All of them ☐ Some of them ☐

Most of them ☐ None of them ☐

How many of these students will you be attending lectures with?

All of them ☐ Some of them ☐

Most of them ☐ None of them ☐

Do you expect to remain friends? Y ☐ N ☐

How many of these students are of the opposite gender?

All of them ☐ Some of them ☐

Most of them ☐ None of them ☐

Do these students speak a different first language to your own?

Y ☐ N ☐

If so, how many of them do? Please specify the language/s.

Are these students of a different race to your own?

Y ☐ N ☐

If so, how many of them are? Please specify the race group/s.

Are these students of a different religion to your own?

Y ☐ N ☐

If so, how many of them are? Please specify what religion/s.

How did you decide where to sit for your first meal in the dining hall?

Did you know anyone at the table you joined?

None ☐ Some ☐

Few ☐ Many ☐

Could you roughly describe the people at your table in terms of proportions of:

Gender:

Male

All ☐ Few ☐

Mostly ☐ None ☐

Female

All ☐ Few ☐

Mostly ☐ None ☐

Race:

Black African

All ☐ Few ☐

Mostly ☐ None ☐

White

All ☐ Few ☐

Mostly ☐ None ☐

Indian

All ☐ Few ☐

Mostly ☐ None ☐

Coloured

All ☐ Few ☐

Mostly ☐ None ☐

Other

Please specify: _____

All ☐ Few ☐

Mostly ☐ None ☐

For the rest of orientation week did you continue to sit at the same table in the dining hall everyday?

Y ☐ N ☐

Did you find yourself sitting with the same people throughout the week?

All the time ☐ Sometimes ☐ Never ☐

Mostly ☐ Infrequently ☐

Do you spend time chatting after a meal?

Y ☐ N ☐

What languages have you heard spoken at the table/s you have sat at during orientation week?

_____

What sorts of things were commonly talked about at the tables you have sat at?

_____

_____

_____

Have you met (other than those students you already knew) any other student/s at UCT that you think might be (a) potential friend/s?

Y ☐ N ☐

How many?

_____

Where did you meet each of these?

_____

_____

How many are of the opposite gender?

_____

How many of these students speak a different first language to your own?

_____

Please specify the language/s.

_____

How many of these students are of a different race to your own?

_____

Please specify the race group/s.

_____

How many of these students are of a different religion to your own?

_____

Please specify the religion/s.

_____

Do you expect to make friends at UCT?

Y ☐ N ☐

Using a scale from 0 – 100%, estimate the likelihood that you will make friends that:

Speak the same language as you _____ Speak a different language to you _____

Are of the same gender as you _____ Are of the opposite gender to you _____

Are from the same racial group as you _____ Are from different racial group to you _____

Do you expect the work level this year to be much more difficult & demanding compared to that of high school?

Y ☐ N ☐

Do you expect to maintain your level of performance compared to that achieved or upheld in highschool?

Y ☐ N ☐

Do you expect to join any societies or clubs at UCT this year?

Y ☐ N ☐

What do you think will influence this choice? (If yes)

Previous participation ☐ Friends ☐

Always had an interest ☐ Other (please specify) _____

Are you anxious about any of the following?

Choosing courses	Y ☐	N ☐
Residence life	Y ☐	N ☐
Living with people from different backgrounds to your own	Y ☐	N ☐
Working with people from different backgrounds to yourself	Y ☐	N ☐
Being taught by people from different backgrounds to yourself	Y ☐	N ☐
Being away from home	Y ☐	N ☐
Public speaking	Y ☐	N ☐

For the following questions underline the word that expresses, or most closely expresses, the way you feel towards the members of other race groups (as a group, and not the best members you have known, or the worst) with regard to certain relationships stated below. Indicate responses only for other race groups and not your own.

1. According to my first feeling or reaction, I would willingly admit:

(a) Any : Most : Some : Few : No	Black African students to live in my residence.
(b) Any : Most : Some : Few : No …	Black African students to be part of my study group.
(c) Any : Most : Some : Few : No	Black African students to my birthday party.
(d) Any : Most : Some : Few : No …	Black African students to my home as my personal friends.
(e) Any : Most : Some : Few : No	Black Africans students as a boyfriend or girlfriend.

2. According to my first feeling or reaction, I would willingly admit:

(a) Any : Most : Some : Few : No	White students to live in my residence.
(b) Any : Most : Some : Few : No …	White students to be part of my study group.
(c) Any : Most : Some : Few : No	White students to my birthday party.
(d) Any : Most : Some : Few : No …	White students to my home as my personal friends.
(e) Any : Most : Some : Few : No	White students as a boyfriend or girlfriend.

3. According to my first feeling or reaction, I would willingly admit:

(a) Any : Most : Some : Few : No	Coloured students to live in my residence.
(b) Any : Most : Some : Few : No …	Coloured students to be part of my study group.
(c) Any : Most : Some : Few : No	Coloured students to my birthday party.
(d) Any : Most : Some : Few : No …	Coloured students to my home as my personal friends.
(e) Any : Most : Some : Few : No	Coloured students as a boyfriend or girlfriend.

4. According to my first feeling or reaction, I would willingly admit:

(a) Any : Most : Some : Few : No	Indian students to live in my residence.
(b) Any : Most : Some : Few : No …	Indian students to be part of my study group.
(c) Any : Most : Some : Few : No	Indian students to my birthday party.
(d) Any : Most : Some : Few : No …	Indian students to my home as my personal friends.
(e) Any : Most : Some : Few : No	Indian students as a boyfriend or girlfriend.

Describe how you feel about the following ethnic groups in general. Circle the number best representing your feelings.

Black students

1 warm	2	3	4	5	6	7 cold
1 negative	2	3	4	5	6	7 positive

1 friendly	2	3	4	5	6	7 hostile
1 suspicious	2	3	4	5	6	7 trusting
1 respect	2	3	4	5	6	7 contempt
1 admiration	2	3	4	5	6	7 disgust

White students

1 warm	2	3	4	5	6	7 cold
1 negative	2	3	4	5	6	7 positive
1 friendly	2	3	4	5	6	7 hostile
1 suspicious	2	3	4	5	6	7 trusting
1 respect	2	3	4	5	6	7 contempt
1 admiration	2	3	4	5	6	7 disgust

Coloured students

1 warm	2	3	4	5	6	7 cold
1 negative	2	3	4	5	6	7 positive
1 friendly	2	3	4	5	6	7 hostile
1 suspicious	2	3	4	5	6	7 trusting
1	2	3	4	5	6	7

respect						contempt
1 admiration	2	3	4	5	6	7 disgust

Indian students

1 warm	2	3	4	5	6	7 cold
1 negative	2	3	4	5	6	7 positive
1 friendly	2	3	4	5	6	7 hostile
1 suspicious	2	3	4	5	6	7 trusting
1 respect	2	3	4	5	6	7 contempt
1 admiration	2	3	4	5	6	7 disgust

Appendix C

Dear freshers

This is the second of the three questionnaires in the friendship study in which you have agreed to participate. This questionnaire particularly focuses on your adjustment to, and experience at, university thus far. It also explores the possible friendships that you may have made here at the university.

The instructions are the same as those for the first questionnaire. Please use the same code name for questionnaire 2 as was used for questionnaire 1, i.e. the code name that you were given with the first questionnaire. We also require the same demographic details as before, since some participants did not use the code names that were assigned to them, while others handed in the questionnaires with no form of identification. These details will help us match the questionnaires for these participants. As was explained, it is important for the purpose of the study that all three questionnaires are received from each participant. The main purpose for the questionnaires is to be able to monitor your adjustment to university, particularly with regard to making friends. If we cannot match the questionnaires, we will be unable to pay you for your participation. If you have forgotten your code name, you may contact Ines (ines@humanities.uct.ac.za or tel: (021) 650 4606) who was responsible for the assigning of the code names. If you did not use the assigned code name, i.e. you used your own made-up code name, it would be helpful if you retained the same made-up name.

NB! We need to have received all three questionnaires from each of you in order to pay you. It is therefore important for you to use the same form of identification in each of the questionnaires. As agreed, you will receive payment once all three questionnaires have been received. You will be receiving the third questionnaire shortly. Please place the completed questionnaires in the boxes provided in the dining hall.

For those who have still not returned the first questionnaire, there is still time to do so. If you return all three questionnaires by the final date for questionnaire three, you will still receive payment. If you require another copy of questionnaire one, please email me at schlei002@mail.uct.ac.za Also, feel free to forward any other questions or queries to me.

Regards
Leigh Schrieff

Adjustment to University Questionnaire 2

Code name: _____

Age: _____ Sex: M ☐ F ☐

Race: Black African ☐ White ☐
Coloured ☐ Indian ☐
Other – please specify _____

Nationality: _____ Country of residence: _____

Home language: _____

Having successfully completed your first quarter, how well do you think that you have coped with the transition from high school to university?

☐ Very well ☐ Well ☐ Barely ☐ Badly

Have you found the methods of teaching in university very different to that of school?

☐ Yes ☐ No ☐ Unsure

How do you rate the level of teaching at university?

☐ Excellent ☐ Very good ☐ Good ☐ Average ☐ Poor

In general, have you found the tutors helpful?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Do you consider yourself able to cope with the work ahead?

☐ *Yes* ☐ No ☐ Unsure

How would you rate your adjustment to res thus far?

1	2	3	4	5
I have adjusted well				I have not adjusted at all

Do you enjoy the meals at res?

1	2	3	4	5
Always	Often	Sometimes	Hardly ever	Never

What would you regard as the best thing about res?

_____

_____

What would you regard as the worst thing about res?

_____

_____

Have you joined any clubs or societies this year?

Yes ☐ No ☐

If so, which clubs or societies have you joined?

_____

_____

Are you still actively involved in these societies?

Yes ☐ No ☐

If not, why did you leave?

Not what you expected ☐ Did not enjoy it ☐

Did not know anyone there ☐ No time ☐

Other _____

Have you been involved in or attended any of the RAG activities this year?

Yes ☐ No ☐

If so, name these activities.

_____

How would you rate these activities?

☐ Excellent ☐ Very good ☐ Good ☐ Average ☐ Poor

Judging from your own, overall experience thus far, how would you rate your experience at this university?

☐ Very positive ☐ Positive ☐ Mixed ☐ Negative ☐ Very negative

What are some of your reasons for your choice above?

_____

_____

_____

In this section, we are interested in your friendships.

Since arriving at UCT, have you met any students that you now consider your friends?

☐ *Yes* ☐ No ☐ Unsure

If so, how many?

_____

Please answer the following questions about the closest (maximum 3) of the friends made at UCT.

Friend 1 (your closest friend):

Sex: M ☐ F ☐ Race: _____

Home language: _____ High school where matriculated _____

Where did you meet this friend / How did you come to be friends?

_____

Does this friend live in the same res as you?

Y ☐ N ☐

How would you describe this friendship?

_____

Why do you regard this person as your friend?

_____

_____

Which of the following characterises your friendship?

We spend social evenings together	☐	I loan him/her money	☐
Our rooms are in close proximity so we share things (CD's, shampoo, cigarettes, etc)	☐	We discuss things of a non-personal nature (music, sports, parties)	☐
We watch TV together	☐	We go to the cinema together	☐
We go on trips together e.g. on weekends	☐	We share personal issues with one another	☐
We chat occasionally (e.g. in the dining hall, at res, etc)	☐	We get drunk together	☐
We pig out together	☐	We study together / attend lectures together	☐
We visit family together	☐	We keep one another company	☐
We make fun of each other in a light-hearted way	☐	We visit other friends together	☐

How often do you see this friend?

All the time	Frequently	Sometimes	Infrequently	Never
☐	☐	☐	☐	☐

Friend 2 (your second closest friend):

Sex: M ☐ F ☐ Race: _____

Home language: _____ High school where matriculated _____

Where did you meet this friend / How did you come to be friends?

_____

Does this friend live in the same res as you?

Y ☐ N ☐

How would you describe this friendship?

_____

Why do you regard this person as your friend?

_____

_____

Which of the following characterises your friendship?

We spend social evenings together	☐	I loan him/her money	☐
Our rooms are in close proximity so we share things (CD's, shampoo)	☐	We discuss things of a non-personal nature (music, sports, parties)	☐
We watch TV together	☐	We go to the cinema together	☐
We go on trips together e.g. on weekends	☐	We share personal issues with one another	☐

We chat occasionally (e.g. in the dining hall, at res, etc) ☐ We get drunk together ☐

We pig out together ☐ We study together / attend lectures together ☐

We visit family together ☐ We keep one another company ☐

We make fun of each other in a light-hearted way ☐ We visit other friends together ☐

How often do you see this friend?

☐ All the time ☐ Frequently ☐ Sometimes ☐ Infrequently ☐ Never

Friend 3 (your third closest friend):

Sex: M ☐ F ☐ Race: _____

Home language: _____ High school where matriculated _____

Where did you meet this friend / How did you come to be friends?

_____

Does this friend live in the same res as you?

Y ☐ N ☐

How would you describe this friendship?

_____

Why do you regard this person as your friend?

_____

_____

Which of the following characterises your friendship?

We spend social evenings together ☐ I loan him/her money ☐

Our rooms are in close proximity so we share things (CD's, shampoo) ☐ We discuss things of a non-personal nature (music, sports, parties) ☐

We watch TV together ☐ We go to the cinema together ☐

We go on trips together e.g. on weekends ☐ We share personal issues with one another ☐

We chat occasionally (e.g. in the dining hall, at res, etc) ☐ We get drunk together ☐

We pig out together ☐ We study together / attend lectures together ☐

We visit family together ☐ We keep one another company ☐

We make fun of each other in a light-hearted way ☐ We visit other friends together ☐

How often do you see this friend?

☐ All the time ☐ Frequently ☐ Sometimes ☐ Infrequenty ☐ Never

In the dining hall, do you most frequently sit on your own or with other students?

Sit on your own ☐ With other students ☐

If you sit with other students, are these students:

The same students you sat with during orientation week ☐ Students you've met in the dining halls ☐

Students you've met in res ☐ Students you don't know ☐

How many of the people that share a table with you do you regard as friends?

_____

Do these people include the 3 friends mentioned above?

Yes ☐ No ☐

Do you sit at the same table in the dining hall everyday?

Yes ☐ No ☐

Do you find yourself sitting with the same people everyday?

All the time	Frequently	Sometimes	Infrequently	Never
☐	☐	☐	☐	☐

How many of the people that you regularly sit with now are of the
Same sex as yourself:

All	Most	Some	None
☐	☐	☐	☐

Same race as yourself:

All	Most	Some	None
☐	☐	☐	☐

Speak a different language to you

All	Most	Some	None
☐	☐	☐	☐

How comfortable are you sharing a table with students who:

Speak a different language to you

1	2	3	4	5
Very comfortable				Not at all comfortable

Are of the opposite gender to you

1	2	3	4	5
Very comfortable				Not at all comfortable

Are of a different race to you

1	2	3	4	5
Very comfortable				Not at all comfortable

Why would you say this is so?

_____

_____

Appendix D

It's payday!!!

Please complete this questionnaire *as soon as possible* so that we may pay you!

Dear freshers

This is the third and final questionnaire in the friendship study in which you agreed to participate. Having almost completed your first semester at university, this questionnaire focuses on your experiences at, and feelings towards university thus far.

NB! This being the final questionnaire means that once you hand in this questionnaire, provided that you have handed in the other two questionnaires, **you will be paid**. So, for those who have handed in questionnaires 1 and 2, the quicker you complete and hand in questionnaire 3, the quicker you will be paid. Well done and many thanks to those who have taken the time to complete all the questionnaires. You will soon be rewarded.

The instructions are the same as those for the other two questionnaires. Remember to use the same code name as was used for both questionnaire 1 and 2. Please feel free to contact Ines (ines@humanities.uct.ac.za or tel: (021) 650 4606) if you have forgotten your code name. Please drop the questionnaires in the wooden boxes provided in the dining hall (next to the door monitor) and at the entrance to Fuller residence.

Please direct any other questions or queries to me at schlei002@mail.uct.ac.za

Regards
Leigh Schrieff

Adjustment to University Questionnaire 3

Code name: _____

Age: _____ Sex: M ☐ F ☐

Race: Black African ☐ White ☐
Coloured ☐ Indian ☐
Other – please specify _____

Nationality: _____ Country of residence: _____

Home language: _____

Now that four months have passed, would you say that you have made friends at res?

Yes ☐ No ☐

Do you participate in activities in res organised by the entertainment committee of your residence?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

If so, list the activities in your residence in which you have participated thus far.

_____

_____

Are there any other activities that you would like to be offered at res?

_____

_____

Do you presently find yourself sitting in the res dining hall with any of the same people you sat with during orientation week?

All of them	Most of them	Some of them	None of them
☐	☐	☐	☐

Over the past few months, what has determined where you've sat for meals in the res dining hall?

Are there students whom you know from your res (i.e. Smuts, or Fuller) that you regularly sit with in the dining hall?

Yes ☐ No ☐

If so, how often do you sit with them?

Always	Most times	Sometimes	Never
☐	☐	☐	☐

Would you regard these students as

Friends	Acquaintances	Colleagues
☐	☐	☐

Which of the following is important when deciding where to sit in the dining hall: (Tick all that apply)

I sit :

Where I think people will accept me	☐	Where I think people won't reject me	☐
Where people won't bother me	☐	Where I think I will feel comfortable	☐
With people I can talk to	☐	With people I share courses with	☐
With people I have something in common with	☐	With people I think are most like me	☐

We have noticed that many students often sit with the same people in the dining hall. Why do you think this happens?

Why do you think some students are reluctant to sit with different people at different meal times?

As you may have gathered, part of this research is focused on the seating patterns in the dining hall. What do you think this research will establish about the patterns of seating?

How important are the following factors in determining where you sit at meals? Please rank them from 1 – 10, where 1 is most important.

Gender	____	Race	____
Same university subjects	____	Same year of study	____
Friendship	____	Religion	____
Similar culture	____	Similar politics	____
Language	____	Other	____

Please specify 'other' if included above _____

Having almost completed your first semester, we are interested in how you feel about being at UCT – both positive and negative.

What are the things that you like about UCT, that make you glad to be here?

What are the things that you do not like about UCT, that make you feel uncomfortable?

Taking into account all your experiences, how would you rate UCT?

1	2	3	4	5	6	7
Very welcoming						Very hostile

What could be done to make your experience at university better?

For many students, university is the first time they experience a multi-racial and multicultural environment. How much contact have you had with people from other race groups at university since arriving here?

☐ None at all ☐ A little ☐ Some ☐ A great deal

Generally, how would you describe these experiences?

☐ Mostly positive ☐ Somewhat positive ☐ Somewhat negative ☐ Mostly negative

Please provide reasons for your answer above.

In your experience at UCT thus far, do you think that lecturers and tutors are friendlier to students of certain race groups than to students of other race groups?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Comments.

Do you think that marks are awarded fairly to different race groups?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Comments.

Do you feel that different race groups are treated differently in student clubs or societies at UCT?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Comments.

Do you feel that different race groups are treated differently in res?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Comments.

Generally, do you think that different race groups are treated equally at UCT?

☐ Always ☐ Most times ☐ Sometimes ☐ Never

Comments.

One often observes race segregation amongst UCT students in different settings on campus. What do you think are reasons for this?

Appendix E

Table E1	Age distribution among questionnaire respondents					
	Black	White	Coloured	Indian	Chinese	Total
Age						
16	1	0	0	0	0	1
17	9	3	0	2	1	15
18	22	30	2	3	3	60
19	7	5	0	1	0	13
20	2	0	0	1	0	3
21	2	0	0	0	0	2
26	0	1	0	0	0	1
Total	43	39	2	7	4	95=N
Percentage	45.26	41.05	2.11	7.37	4.21	

Range = 16-26; Mode=18yrs; Mean=18.16yrs

Table E2	The nationality of respondents						
	Black	White	Coloured	Indian	Chinese	Total	%
South African	33	38	2	5	1	79	83.16
Zimbabwean	4	0	0	0	0	4	4.21
Ugandan	1	0	0	0	0	1	1.05
Ghanaian	3	0	0	0	0	3	3.16
Mauritian	0	0	0	1	0	1	1.05
Basotho	1	0	0	0	0	1	1.05
Motswana	1	0	0	0	0	1	1.05
Chinese	0	0	0	0	3	3	3.16
Belgian	0	1	0	0	1	1	1.05
Indian	0	0	0	1	1	1	1.05
Total	43	39	2	7	4	95	

Table E3	Respondents' country of residence					
	Black	White	Coloured	Indian	Chinese	Total
South Africa	37	39	2	6	3	87 (91.58%)
Zimbabwe	4	0	0	0	0	4
Mauritius	0	0	0	1	0	1
Lesotho	1	0	0	0	0	1
Botswana	1	0	0	0	0	1
China	0	0	0	0	1	1
Total	43	39	2	7	4	95=N

Table E4	The home language of respondents						
	Black	White	Coloured	Indian	Chinese	Total	%
English	6	33	2	6	0	47	49.47
Afrikaans	0	4	0	0	0	4	4.21
Xhosa	8	0	0	0	0	8	8.42
Zulu	8	0	0	0	0	8	8.42
Sesotho	3	0	0	0	0	3	3.16
Shona	3	0	0	0	0	3	3.16
Sepedi	3	0	0	0	0	3	3.16
Chinese	0	0	0	0	3	3	3.16
Siswati	1	0	0	0	0	1	1.05
German	0	2	0	0	0	2	2.11
Tswana	1	0	0	0	0	1	1.05
French	0	0	0	1	0	1	1.05
Setswana	3	0	0	0	0	3	3.16
Cantonese	0	0	0	0	1	1	1.05
Tsonga	1	0	0	0	0	1	1.05
N. Sotho	1	0	0	0	0	1	1.05
Ndebele	1	0	0	0	0	1	1.05
S. Sotho	2	0	0	0	0	2	2.11
Venda	2	0	0	0	0	2	2.11
Total	43	39	2	7	4	95=N	

Appendix F

Naturalistic observations data and results for each observational period																		
	Date	Time	No. of		Total	No. of tables						Indices						
	(2003)		Black (159)	White (206)		Only black	Single black	Mixed	Only white	Single white	Total	D	P-value	Ave sim[6]	**xPy**	P-value	Ave sim	
1	09/02	17h50	32	32	64	7	-	2	4	1	14	**0.906**	<0.001	0.420	**0.058**	<0.001	0.366	
2	10/02	18h00	40	20	60	6	-	2	3	3	14	**0.925**	<0.001	0.589	**0.052**	<0.001	0.192	
3	17/02	18h10	38	38	76	5	-	3	5	2	15	**0.864**	<0.001	0.386	**0.089**	<0.001	0.382	
4	19/02	18h10	37	46	83	6	-	5	5	1	17	**0.843**	<0.001	0.431	**0.001**	<0.001	0.399	
5	22/02	19h10	26	31	57	7	-	-	5	-	12	**1.00**	<0.001	0.432	**0**	<0.001	0.392	
6	24/02	18h40	31	49	80	5	-	2	6	1	14	**0.871**	<0.001	0.461	**0.091**	<0.001	0.435	
7	26/02	18h40	31	43	74	3	1	4	7	-	15	**0.889**	<0.001	0.454	**0.001**	<0.001	0.418	
8	27/02	18h30	34	37	71	5	1	3	5	1	15	**0.860**	<0.001	0.401	**0.001**	<0.001	0.387	
9	03/03	18h40	34	41	75	6	-	-	7	-	13	**1.00**	<0.001	0.394	**0**	<0.001	0.416	
10	04/03	18h30	37	46	83	4	1	5	4	1	15	**0.767**	<0.001	0.410	**0.017**	<0.001	0.412	
11	31/03	18h10	17	40	57	3	1	2	6	-	12	**0.916**	<0.001	0.602	**0.082**	<0.001	0.429	
12	19/08	18h30	25	46	71	3	-	2	6	1	12	**0.880**	<0.001	0.509	**0.091**	<0.001	0.442	
13	21/08	18h40	25	27	52	5	1	-	5	-	11	**1.00**	0	0.410	**0**	0	0.382	
Total			407	496	903	65	5	30	68	11	179							

[6] This refers to the average simulation result. The number of simulations was set at 2000.

Appendix G

Table G1	Whom respondents chose as friend 1 in terms of race and sex									
	Respondents									
	Black		**White**		**Coloured**		**Indian**		**Asian**	
	M	F	M	F	M	F	M	F	M	F
Friend 1										
Black										
M	9	7	1		1			1		
F	1	19								
Total	**36**		**1**		**1**		**1**		**0**	
White										
M	1		13	3						
F	1	1	2	19						1
Total	**3**		**37**		**0**		**0**		**1**	
Coloured										
M										
F		3						1		
Total	**3**		**0**		**0**		**1**		**0**	
Indian										
M								1		
F		1		1		1		2		
Total	**1**		**1**		**1**		**3**		**0**	
Chinese										
M										1
F								1		1
Total	**0**		**0**		**0**		**1**		**2**	
Mixed										
M									1	
F										
Total	**0**		**0**		**0**		**0**		**1**	
Taiwanese										
M										
F								1		
Total	**0**		**0**		**0**		**1**		**0**	
Total	12	31	16	23	1	1	0	7	1	3

Table G2	Whom respondents chose as friend 2 in terms of race and sex									
	Respondents									
	Black		**White**		**Coloured**		**Indian**		**Asian**	
	M	F	M	F	M	F	M	F	M	F
Friend 2										
Black										
M	6	6			1					
F	4	20		1				3		1
Total	**36**		**1**		**1**		**3**		**1**	
White										
M			12	4					1	
F		1	1	16						
Total	**1**		**33**		**0**		**0**		**1**	
Coloured										
M		1	1	1						
F	2	1		1		1				
Total	**4**		**3**		**1**		**0**		**0**	
Indian										
M										
F		1						4		
Total	**1**		**0**		**0**		**4**		**0**	
Chinese										
M										2
F										
Total	**0**		**0**		**0**		**0**		**2**	
South African										
M										
F			1							
Total	**0**		**1**		**0**		**0**		**0**	
Mixed origin										
M			1							
F										
Total	**0**		**1**		**0**		**0**		**0**	
Total	12	30	16	23	1	1	0	7	1	3

Table G3 Whom respondents chose as friend 3 in terms of race and sex										
	Respondents									
	Black		**White**		**Coloured**		**Indian**		**Asian**	
	M	F	M	F	M	F	M[7]	F	M	F
Friend 3										
Black										
M	7	8								
F	3	16		1	1	1		1		
Total	**34**		**1**		**2**		**1**		**0**	
White										
M	1	1	9	6					1	
F		1	4	15						
Total	**3**		**34**		**0**		**0**		**1**	
Coloured										
M		1		1						
F										
Total	**1**		**1**		**0**		**0**		**0**	
Indian										
M	1							3		
F		1						1		
Total	**2**		**0**		**0**		**4**		**0**	
Chinese										
M			1							
F		1								3
Total	**1**		**1**		**0**		**0**		**3**	
South African										
M			1							
F										
Total	**0**		**1**		**0**		**0**		**0**	
Total	12	29	16	23	1	1	0	7	1	3

[7] There were no male Indians in the sample

Appendix H

Table H1 Participants who stated cross-race friends as friend 1, and who they stated

Participants				**Friend 1**		
race	sex	language	Nationality	race	sex	language
Coloured	M	English	SA	Black	M	Sesotho
Chinese	M	Chinese	SA	Mixed	M	English
Black	M	Xhosa	SA	White	F	English
White	M	English	SA	Black	M	English
Black	M	Shona	Zim	White	M	English
Indian	F	English	SA	Taiwanese	F	Taiwanese
Black	F	Zulu	SA	Coloured	F	English
Indian	F	French	Mauritian	Chinese	F	Chinese
Black	F	Tsonga	SA	Coloured	F	Afrikaans
Indian	F	English	SA	Black	M	English
Coloured	F	English	SA	Indian	F	English
Black	F	English	Ghanaian	Indian	F	English
Black	F	English	Ghanaian	Coloured	F	English
White	F	English	SA	Indian	F	Enlglish
Indian	F	English	Indian	Coloured	F	English
Chinese	F	Chinese	Chinese	White	F	English
Black	F	Zulu	SA	White	F	English

Table H2 Participants who stated cross-race friends as friend 2, and who they stated						
Participants				**Friend 2**		
race	sex	language	Nationality	race	sex	language
Coloured	M	English	SA	Black	M	Zulu
White	M	English	SA	SA	F	English
Chinese	M	Chinese	SA	White	M	English
White	M	English	SA	Mixed origin	M	English
Black	M	Xhosa	SA	Coloured	F	English
White	M	English	SA	Coloured	M	English
Black	M	English	Ugandan	Coloured	F	Xhosa
Black	F	Xhosa	SA	White	F	English
Indian	F	French	Mauritian	Black	F	English
Black	F	Sepedi	SA	Coloured	F	Afrikaans
Chinese	F	Cantonese	Chinese	Black	F	English
White	F	English	SA	Coloured	F	English
Indian	F	English	SA	Black	F	Zulu
White	F	English	Belgian	Coloured	M	English
Black	F	Setswana	SA	Coloured	M	English
Black	F	English	Ghanaian	Indian	F	Maliyali
Indian	F	English	Indian	Black	F	English/ Chwi
White	F	English	SA	Black	F	Zulu

Table H3 Participants who stated cross-race friends as friend 3, and who they stated						
Participants				**Friend 3**		
race	sex	language	Nationality	Race	sex	language
Coloured	M	English	SA	Black	F	Tswana
White	M	English	SA	SA	M	English
Chinese	M	Chinese	SA	White	M	English
White	M	English	SA	Chinese	M	Chinese
Black	M	Shona	Zim	Indian	M	English
Black	M	English	Ugandan	White	M	English
White	F	English	SA	Black	F	Xhosa
White	F	Afrikaans	SA	Coloured	M	English
Indian	F	English	SA	Mauritian	F	Creole
Black	F	-	SA	Coloured	M	English
Black	F	Zulu	SA	White	F	Zulu?
Indian	F	French	Mauritian	Black	F	English
Coloured	F	English	SA	Black	F	Twi?
Black	F	English	Ghanaian	Indian	F	Tamil
Black	F	English	Ghanaian	Chinese	F	Mandarin
Black	F	Zulu	SA	White	M	English
Indian	F	English	Indian	Taiwanese	F	Taiwanese
White	M	English	SA	English	F	English

Appendix I

	Table I1: Variables with which social distance scores were correlated with for whites:	**Pearson's R**	**Probability value**
1	Friends outside UCT from a different race group	0.2395	0.142
2	Potential friends – How many are of a different race?	0.1410	0.392
3	New friends – scale 0-100% - likelihood of friends of the same race?	-0.1319	0.424
4	New friends – scale 0-100% - likelihood of friends from a different racial group?	-0.0631	0.703
5	How anxious are you living with people from different backgrounds?	-0.1604	0.329
6	How anxious are you working with people from different backgrounds?	-0.2395	0.142
7	How anxious are you being taught by people from different backgrounds?	-0.1584	0.336
8	How comfortable are you sharing a table with students who have a different first language to you?	0.2855	0.078
9	How comfortable are you sharing a table with students who are of a different race?	0.3375	**0.036**
10	In the dining hall, I sit where I think I will feel more comfortable	0.0399	0.809
11	How much contact have you had with people from other race groups since arriving here?	0.1312	0.426
12	Generally, how would you describe these experiences?	-0.2830	0.085

	Table I2: Variables with which social distance scores were correlated with for blacks:	**Pearson's R**	**Probability value**
1	Friends outside UCT from a different race group	0.2751	0.074
2	Potential friends – How many are of a different race?	0.3304	**0.033**
3	New friends – scale 0-100% - likelihood of friends of the same race?	0.1012	0.519
4	New friends – scale 0-100% - likelihood of friends from a different racial group?	0.3618	**0.017**
5	How anxious are you living with people from different backgrounds?	-0.4967	**0.001**
6	How anxious are you working with people from different backgrounds?	-0.4385	**0.004**
7	How anxious are you being taught by people from different backgrounds?	-0.4553	**0.002**
8	How comfortable are you sharing a table with students who have a different first language to you?	0.2213	0.159
9	How comfortable are you sharing a table with students who are of a different race?	0.4914	**0.001**
10	In the dining hall, I sit where I think I will feel more comfortable	0.1706	0.274
11	How much contact have you had with people from other race groups since arriving here?	0.3484	**0.022**
12	Generally, how would you describe these experiences?	0.3846	**0.011**

	Table I3: Variables with which semantic differential scores were correlated with for whites:	Pearson's R	Probability value
1	Friends outside UCT from a different race group	-0.4005	**0.012**
2	Potential friends – How many are of a different race?	0.0468	0.777
3	New friends – scale 0-100% - likelihood of friends of the same race?	0.0260	0.875
4	New friends – scale 0-100% - likelihood of friends from a different racial group?	-0.1001	0.544
5	How anxious are you living with people from different backgrounds?	0.0504	0.760
6	How anxious are you working with people from different backgrounds?	0.0801	0.628
7	How anxious are you being taught by people from different backgrounds?	0.0314	0.850
8	How comfortable are you sharing a table with students who have a different first language to you?	-0.2021	0.217
9	How comfortable are you sharing a table with students who are of a different race?	-0.5391	**0.000**
10	In the dining hall, I sit where I think I will feel more comfortable	0.0251	0.879
11	How much contact have you had with people from other race groups since arriving here?	-0.2020	0.217
12	Generally, how would you describe these experiences?	0.2500	0.130

	Table I4: Variables with which semantic differential scores were correlated with for blacks:	Pearson's R	Probability value
1	Friends outside UCT from a different race group	-0.2289	0.155
2	Potential friends – How many are of a different race?	-0.3915	**0.014**
3	New friends – scale 0-100% - likelihood of friends of the same race?	-0.1403	0.388
4	New friends – scale 0-100% - likelihood of friends from a different racial group?	-0.2086	0.196
5	How anxious are you living with people from different backgrounds?	0.2548	0.117
6	How anxious are you working with people from different backgrounds?	0.2094	0.201
7	How anxious are you being taught by people from different backgrounds?	0.1513	0.358
8	How comfortable are you sharing a table with students who have a different first language to you?	-0.2778	0.087
9	How comfortable are you sharing a table with students who are of a different race?	-0.4420	**0.005**
10	In the dining hall, I sit where I think I will feel more comfortable	0.1017	0.532
11	How much contact have you had with people from other race groups since arriving here?	-0.3531	**0.025**
12	Generally, how would you describe these experiences?	-0.4030	**0.010**

Appendix J

Correlations with DV: How many of the people that you regularly sit with now are of the same race as yourself?

Var	Table J1: For white participants: Variables correlated with DV	Pearson's R	Probability value
19	Friends outside UCT from a different race group	-0.0891	0.590
63	Potential friends – How many are of a different race?	0.0356	0.830
72	New friends – scale 0-100% - likelihood of friends of the same race?	0.4124	**0.009**
73	New friends – scale 0-100% - likelihood of friends from a different racial group?	-0.0091	0.956
83	How anxious are you living with people from different backgrounds?	-0.0356	0.830
84	How anxious are you working with people from different backgrounds?	0.0891	0.590
85	How anxious are you being taught by people from different backgrounds?	0.1985	0.226
270	How comfortable are you sharing a table with students who have a different first language to you?	-0.1336	0.418
272	How comfortable are you sharing a table with students who are of a different race?	-0.3308	**0.040**
284	In the dining hall, I sit where people will accept me	0.1113	0.500
285	In the dining hall, I sit where people won't reject me	0.0593	0.720
286	In the dining hall, I sit where people won't bother me	0.1033	0.532
287	In the dining hall, I sit where I think I will feel more comfortable	0.0434	0.793
288	In the dining hall, I sit with people I can talk to	0.2010	0.220
289	In the dining hall, I sit with people I share courses with	0.0518	0.754
290	In the dining hall, I sit with people I have something in common with	0.1934	0.238
291	In the dining hall, I sit with people who are most like me	0.1695	0.302
309	How much contact have you had with people from other race groups since arriving here?	0.1503	0.361
310	Generally, how would you describe these experiences?	-0.0249	0.882
312	Do you think that lecturers or tutors are friendlier to students of certain race groups than to students of other race groups?	-0.0649	0.699
314	Do you think that marks are awarded fairly to different race groups?	0.0477	0.779
316	Do you feel that different race groups are treated differently in student clubs at UCT?	0.2514	0.172
318	Do you feel that different groups are treated differently in res?	0.1765	0.289
320	Generally, do you think that different race groups are treated equally at UCT?	-0.3025	0.065
113	Social distance scores	-0.1070	0.517
133	Semantic differential scores	0.1744	0.288

Var	Table J2: For black participants: Variables correlated with DV	Pearson's R	Probability value
19	Friends outside UCT from a different race group	-0.1260	0.426
63	Potential friends – How many are of a different race?	-0.0628	0.697
72	New friends – scale 0-100% - likelihood of friends of the same race?	0.0078	0.961
73	New friends – scale 0-100% - likelihood of friends from a different racial group?	-0.0837	0.598
83	How anxious are you living with people from different backgrounds?	0.1378	0.390
84	How anxious are you working with people from different backgrounds?	0.1543	0.335
85	How anxious are you being taught by people from different backgrounds?	0.0492	0.760
270	How comfortable are you sharing a table with students who have a different first language to you?	-0.2824	0.070
272	How comfortable are you sharing a table with students who are of a different race?	-0.3151	**0.042**
284	In the dining hall, I sit where people will accept me	-0.0305	0.848
285	In the dining hall, I sit where people won't reject me	0.0246	0.877
286	In the dining hall, I sit where people won't bother me	-0.0946	0.551
287	In the dining hall, I sit where I think I will feel more comfortable	0.0515	0.746
288	In the dining hall, I sit with people I can talk to	-0.1888	0.231
289	In the dining hall, I sit with people I share courses with	-0.0770	0.628
290	In the dining hall, I sit with people I have something in common with	0.1513	0.339
291	In the dining hall, I sit with people who are most like me	0.1026	0.518
309	How much contact have you had with people from other race groups since arriving here?	-0.2657	0.089
310	Generally, how would you describe these experiences?	-0.1688	0.285
312	Do you think that lecturers or tutors are friendlier to students of certain race groups than to students of other race groups?	0.0551	0.729
314	Do you think that marks are awarded fairly to different race groups?	0.1138	0.484
316	Do you feel that different race groups are treated differently in student clubs at UCT?	0.0327	0.847
318	Do you feel that different groups are treated differently in res?	0.0220	0.892
320	Generally, do you think that different race groups are treated equally at UCT?	0.0344	0.835
113	Social distance scores	0.0022	0.989
133	Semantic differential scores	-0.1015	0.539

Appendix K

Summary of stepwise regression, DV: How many are of same race as yourself?							
Variables	**Step +in/-out**	**Multiple R**	**Multiple R^2**	**R^2 change**	**F – to entr/rem**	**p-level**	**Variables included**
scale 2: est likelih of friends of same race	1	0.412359	0.170040	0.170040	7.375575	0.010092	1
Generally, are diff race groups treated equally at UCT?	2	0.513164	0.263337	0.093298	4.432713	0.042503	2

Regression Summary for Dependent Variable: How many are of same race as yourself?
R= .51316407 R^2= .26333736 Adjusted R^2= .22124236 F(2,35)=6.2558 p < .00476 Std. Error of estimate: .49395

	β	**Std. Err of β**	**B**	**Std. Err of B**	**t**	**p-level**	**N**
Intercept			1.438902	0.484406	2.97045	0.005344	
scale 2: est likelih of friends of same race	0.414556	0.145081	0.013365	0.004677	2.85740	0.007144	39
Generally, are diff race groups treated equally at UCT?	-0.305454	0.145081	-0.226521	0.107590	-2.10540	0.042503	38

Redundancy of Independent Variables
R-square column contains R-square of respective variable with all other independent variables

Variables	Tolerance	R-square	Partial Cor	Semipart Cor
scale 2: est likelih of friends of same race	0.999948	0.000052	0.434918	0.414545
Generally, are diff race groups treated equally at UCT?	0.999948	0.000052	-0.335279	-0.305446